Paying for Ecological Services in Ecuador: The *Socio Bosque* Program in *Kichwa* Communities of Chimborazo, Ecuador

by

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A Thesis
presented to
The University of Guelph

In partial fulfilment of requirements
for the degree of
Doctor of Philosophy
in
Political Science and International Development Studies

Guelph, Ontario, Canada

ABSTRACT

PAYING FOR ECOLOGICAL SERVICES IN ECUADOR: THE SOCIO BOSQUE PROGRAM IN KICHWA COMMUNITIES OF CHIMBORAZO ECUADOR

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University of Guelph, 2020

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This research draws from literature on political ecology, payment for ecosystem services (PES), REDD+, market-based perspectives on environmental conservation, decolonization, Indigenous Environmental Knowledge (IEK), and environmental governance to understand the impacts of a state-led, institutionalized PES program, *Socio Bosque*, on *Kichwa* Indigenous communities in Chimborazo, Ecuador. The effects of PES programs are debated with some literature arguing that PES programs positively impact local livelihoods and environmental governance and conservation, while others point out the negative impacts of PES programs. An understanding of the effects of PES programs will be gained by analyzing Indigenous participation and inclusion in the institutional, distributional and epistemic aspects of *Socio Bosque*. Decolonial methodologies and community engaged scholarship shaped the field research which used qualitative methods of interviews with community leaders, community members, and government officials and focus groups in *Kichwa* communities, which allowed for unique opportunities for storytelling and combined these methods with an analysis of government documents. These methodologies provide insight into local understandings of and relationships with *Pachamama* (Mother Nature) and allow for a comparison of these understandings with the epistemic underpinnings of state-led, market-based environmental governance strategies. The empirical evidence suggests that instead of improving Indigenous peoples' well-being, *Socio Bosque* actively erases Indigenous *cosmovisiones* and drastically changes traditional land use and resource management practices. Furthermore, PES programs in Indigenous communities operate within a wider social, political, economic, and cultural context that has historically devalued Indigenous *cosmovisiones* and land use. The implication is that national, state-led programs and policies aimed at improving Indigenous communities' well being and contributing to global climate change goals have reproduced and reinforced unequal power relations between Indigenous communities and the state. However, in spite of the clear negative impacts of PES programs, Indigenous communities do not conserve the environment and participate in PES programs because they are passively dominated or "awakened" by outside ideologies or forces, but they actively participate in a hegemonic ideology of environmental governance and resource management that, on the surface, seems to run counter to their own values and ways of living. This research shows that Indigenous communities have found ways to implement their own agendas within the framework of PES programs as a means of sustaining livelihoods and maintaining ties to land, place, and space, as well as continuing traditional connections to the communal, the natural, and the divine aspects of nature.

ACKNOWLEDGEMENTS

As will become evident in the reading of this dissertation, my faith is a foundational aspect of my life. Therefore, I thank the almighty and everlasting God in whom I live and move and have my being. The events and years leading up to this dissertation were not random moments of chance, but, I truly believe that they were ordained by the hand of God. While I certainly planned my way, the Lord established my steps (Proverbs 16:9). I thank my family, specifically my Mom and Dad, who have supported me well before this PhD endeavour and will continue to support me well beyond. You have all endured many years of conversations about Ecuador, whether you wanted to or not. Your support and prayers have been paramount in this journey. Oliver, I love you buddy, and while I have no illusions that you will one day read the ramblings found in this dissertation, I am blessed to have a kind-hearted, caring son like you. I pray that God guides you to your place in this world as you forge through the messiness. Keep your eyes fixed on Him. To my many friends who have accompanied and supported me in this journey, I thank you all. Richard, Karen, David, Jamie, and many others, I thank you all for your conversations.

There were many people who assisted in this field research and in my understanding of Ecuador and of *Kichwa* communities in Chimborazo. *Para Luis, mi hermano, agradezco tu apoyo. Yo sé que Dios nos unió hace más de 10 años con un propósito. Cualquier pregunta que yo tengo sobre el mundo indígena, siempre has contestado con paciencia y con tu gran sonrisa. Aprecio nuestra amistad. Carlos and Cesar, les doy gracias a los dos para su apoyo en este proceso de investigación. Cesar, tu acompañamiento a las comunidades fue un apoyo inolvidable. Hermano Carlos, tus entrevistas y tu apoyo en varios aspectos siempre me llena de admiración de tu actitud de servicio y entrega de corazón que tienes para los demás y para las comunidades indígenas. Para las comunidades de Chimborazo, hay demasiadas personas para agradecer, pero sin el apoyo de cada tayta y mamita yo estaría perdido en entender el mundo indígena. No solo Han abierto sus comunidades, sino también sus casas y sus corazones para compartir conmigo. Gracias a ustedes he aprendido lo que es vivir con la vista puesto en Dios, y tengo una idea, aunque sea a través de sus historias, como es luchar para la libertad, los derechos y una mejor vida.*

Finally, thank you to my University of Guelph family. To my thesis supervisor, Dr. Craig Johnson, you have been a mentor and friend who has provided a guiding voice throughout this entire process. I will never forget our time in the field and for the academic and life lessons you have taught me. I thank my dissertation committee, Dr. Liisa North, Dr. Candace Johnson, and Dr. Rosario Gómez. Your influence is embedded into this work and we will forever be connected through this unique process. Special thanks go to Dr. Steffi Hamann for being part of my defense committee. Your comments and questions were both thoughtful and challenging. Also, special thanks to Dr. John Cameron who served as an external reader for my defense. I appreciate your support and constructive comments. It is a shame that COVID didn't permit us to meet in person, but I have no doubt that our paths will cross in the future. I am forever grateful to you all.

I would also like to thank the IDRC (International Development Research Centre) for their financial support for fieldwork. The John G. Bene Fellowship allowed me to conduct field research that would not have been possible without the support of the Bene family and their generous fellowship.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

Alianza PAIS	*Patria Altiva i Soberana* political party
CONAIE	Confederation of Indigenous Nationalities of Ecuador
ENT	*Estrategia Nacional Territorial* (National Territorial Strategy)
GAD	*Gobiernos Autónomos Descentralizados* (Decentralized Autonomous Governments)
MAE	*Ministerio del Ambiente* (Ministry of Environment)
MAGAP	*Agricultura, Ganadería, Acuacultura y Pesca* (Ministry of Agriculture, Livestock, Aquaculture, and Fishing)
PDOT	*Plan de desarrollo y ordenamiento territorial* (Territorial Organization and Development Plan)
PES	Payment for Ecological Services (used interchangeably with Payment for Ecosystem Services)
PNBV	*Plan Nacional del Buen Vivir* (National Plan for Good Living/Living
PND	*Plan Nacional de Desarrollo* (National Development Plan)
PROFAFOR	*Programa FACE de Forestación* – FACE Forestation Program
SENPLADES	*Secretaría Nacional de Planificación y Desarrollo* (National Secretariat for Planning and Development
UN-REDD/REDD+	United Nations Reducing Emissions from Deforestation and Forest Degradation Program

Chapter 1

Introduction

The Paris Agreement seeks to strengthen the global response to climate change. Staying within the 1.5-degree target set out in the agreement will require reforestation, forest protection and other forms of land and resource conservation polices (IPCC, 2018; 2019; IPBES, 2019). Payment for ecosystem services (PES) programs are seen by governments, international environmental organizations and local communities as a means to achieve global climate change goals by protecting ecosystems, improving livelihoods, and combating climate change. Underpinning the PES model is an assumption that paying for ecological services will provide an incentive to local communities to conserve local ecosystems that provide global ecological value. Indigenous communities are seen as key partners in PES programs, such as the United Nations' REDD+ (Reducing Emissions from Deforestation and Forest Degradation) program, due to the large amount of forest and grassland they inhabit (Campbell et al., 2008; EDF, 2015). As a result, in 2010 REDD+ adopted the Cancun Safeguards as measures to protect Indigenous communities and provide platforms for meaningful inclusion and participation of Indigenous peoples in global environmental governance programs (UNFCCC, 2019). The Cancun Safeguards outline the importance of meaningful inclusion of Indigenous peoples in policy and program decisions about land use and resource governance on their land, as well as the need to understand the effects PES programs have on Indigenous communities.

In adopting a perspective on PES that analyses the meaningful inclusion and participation of Indigenous communities in its programs, this research seeks to generate novel insights into environmental governance literature and to develop an understanding of the politics of PES programs in Indigenous communities. In the chapters that follow, this research contrasts the underlying assumptions about nature, livelihoods, and environmental conservation inherent in PES programs with those of the *Kichwa* Indigenous people of the province of Chimborazo, Ecuador. Drawing on research carried out in five different *Kichwa* communities in Chimborazo, Ecuador over a period of seven months, this research uses a combination of quantitative and qualitative methodologies to explore the institutional, distributional, and epistemic dimensions of implementing a state-led PES program in the Andean highlands of Chimborazo. In doing so, this research responds to recent calls for a more critical analysis of the local effects of the institutionalization of PES programs (Brockhaus et al., 2014; Duchelle et al., 2018; Massarella et al., 2018; Zelli et al., 2019).

The empirical focus of this research is *Socio Bosque* (Forest Partnership), a national PES policy that was introduced in Ecuador in 2008 to sequester carbon, reduce deforestation, conserve diverse ecosystems, and provide financial assistance to resource-dependent communities. The program offers incentive payments to individuals and communities in exchange for the conservation of their land and has received international praise within REDD+ circles and international conservation institutions (Vander Velde, 2015). Indigenous communities are the largest landholders participating in the program, conserving 88% of the total hectares available through *Socio Bosque*. High levels of Indigenous participation in PES programs like *Socio Bosque* indicate a need to understand how these programs affect Indigenous communities' livelihoods, land use, and resource management practices.

Ecuador offers both a unique and exemplary case within Latin America. Six of the top ten countries with the most tree species are in Latin America, with Ecuador number eight (OECD, 2019). However, the rich biodiversity of the region is being threated by deforestation and ecosystem degradation. Deforestation rates in South America are second only to Africa (2.96 million hectares to 4.41 million hectares), but the region has cut its deforestation rate in half since the early 90s (FAO, 2020). Ecuador is representative of this trend with net deforestation declining from an annual average of 92,742 hectares (1990-2000) to 77,748 hectares (2000-2008) to the country's current rate of 54,304 hectares (2008-2016) (MAE, 2017). However, these statistics can be misleading since forest plantations are considered regeneration and contribute to improving the "gross" deforestation rates, and forest plantations have nearly tripled in the last 30 years with government policies, such as the 2013 *Plan Nacional de Forestación y Reforestación* (National Forestation and Reforestation Plan), contributing to this increase. In 2018, Ecuador registered a deforestation of 12.8 million hectares of primary forest which is below the high rates of 14.5 million hectares registered in the 90s, but still a high reduction of primary forests (*El Universo*, 2019a). What is more alarming for Ecuador is that the country is estimated to have lost 20% of its primary Amazon rainforest, a rate nearly three times higher than that of Brazil (0.7% to 0.2%) which is one of the countries with the highest global deforestation rates (Vistazo, 2019).

Ecuador, and, more specifically, the province of Chimborazo where this study is situated, is also home to the unique *páramo* ecosystem which runs through the Andes mountain chain. The Andean *páramos* are experiencing severe degradation due to increased resource extraction, deforestation, and agricultural and livestock activities (IUCN, 2014) and Ecuador is representative of the destructive nature of these practices where an "ongoing and unrestrained process" of degradation is taking place (Hofstede et al., 2002a: 1; Vásconez et al., 2011). In many cases, the global poor are found in forest-dependant communities and, oftentimes, Indigenous peoples, as is the case of the *páramos* of Chimborazo. In Latin America, approximately eight million of the region's poor depend on forests for their livelihoods, representing 82 percent of the region's poor (OECD, 2019). The Ecuadorian *páramos* represent a regional case where human impacts are the main contributors to degradation (Vásconez et al., 2011) and can provide insight into the effectiveness of PES programs in combating the environmental degradation of these unique ecosystems.

Ecuador provides a unique case to study the programs and policies being implemented in a country that has enshrined the rights of nature and Indigenous concepts, such as *sumak kawsay,* into its constitution and institutional framework. In the particular case of ecosystem governance, Ecuador is unique to the region with its focus on contributing to REDD+ goals and creating a national PES program, *Socio Bosque.* In contrast, the FAO's Global Resource Assessment (2020) states that only seventeen percent of Latin American forests have long-term, sustainable forest management plans, compared to 25 percent in Africa, suggesting the need for improved environmental governance and management in the region. PES programs are growing within the region and *Socio Bosque* represents one of the ten largest national PES programs worldwide, further indicating the importance of the Ecuadorian case (OECD, 2019).

The research unfolds as follows. The next chapter provides a brief contextual understanding of the historical, socio-political climate in Ecuador, as well as a brief explanation of key concepts and ideas that have helped to frame environmental governance in Ecuador and, more specifically, within Indigenous communities of Chimborazo. The third chapter lays the theoretical groundwork for the dissertation, reviewing the evidence and arguments in favour of using PES programs for achieving global environmental governance and climate change goals and developing a framework for

understanding the politics of inclusion and participation of Indigenous communities in PES programs within the Andean context. The fourth chapter outlines the methods utilized in the study before moving to chapters five, six and seven which contain an analysis of the empirical field research in the highland province of Chimborazo, documenting the institutional, distributional, and epistemic dimensions of the *Socio Bosque* program and the inclusion and participation of Indigenous communities in the program. There is a clear need to understand what meaningful inclusion and participation of Indigenous communities in PES programs look like from the perspective of those who have been historically marginalized from political and economic participation and decision-making processes, most importantly Indigenous peoples. Therefore, the words of local community members form an integral part of the empirical analysis to provide the perspective of the *Kichwa* Indigenous communities of Chimborazo who are participating in *Socio Bosque*. Finally, chapter seven provides general conclusions, contributions to the literature made by this work, and the practical applications of the evidence presented.

1.1 Objectives

This research investigates the impacts of PES programs on Indigenous communities in Ecuador. It draws from literature on political ecology, PES, REDD+, market-based perspectives on environmental conservation, decolonization, Indigenous Environmental Knowledge (IEK), and environmental governance to help understand the impacts of state-led, institutionalized PES programs on Indigenous communities. This understanding will be gained by analyzing Indigenous participation and inclusion in the institutional, distributional and epistemic aspects of PES programs. Furthermore, this research will help to understand the ability and willingness of Indigenous communities to participate in state-led, global environmental governance programs when, at times, these programs seem to run counter to Indigenous values and beliefs about nature, land, and place. In order to achieve the aims outlined above, the following objectives will guide the research:

1. to document local, Indigenous perspectives on the effects of PES programs in Indigenous territories
2. to explain the rules and norms embedded in the institutionalization of *Socio Bosque*
3. to analyze the distribution of incentive payments in 5 different *Kichwa* Indigenous communities

4. to understand how PES perspectives on nature and Indigenous knowledge and relationships with nature affect interactions between Indigenous communities and the Ecuadorian state.

1.2 Research Questions

To help achieve the aims and objectives, the research will be guided by the following central research question: Why do Indigenous communities choose to participate in PES programs that, on the surface, seem to be detrimental to their current livelihoods, land use, and resource management practices?

Each empirical chapter will have its own guiding question(s) and they are as follows:

1. Institutional
    a. To what extent do institutionalized PES programs, such as *Socio Bosque*, open up new, participatory spaces for Indigenous communities?
    b. What barriers do the norms and rules of *Socio Bosque* create for Indigenous communities?
    c. To what extent do norms and rules underpin PES programs and shape the behaviours of Indigenous communities?
    d. In what ways do institutionalized environmental governance programs like *Socio Bosque* create territorial restructuring of land and local relations
2. Distributional
    a. How does the distribution of incentive payments within Indigenous communities in Chimborazo affect local environmental governance and conservation efforts?
    b. How have the 5 communities of this research spent their incentive payments and, as a result, what conclusions can be drawn about community priorities?
    c. How are the incentive payments representative of distribution within *Socio Bosque* at the national level and other individual cases?
3. Epistemic
    a. What meaning and value do *Kichwa* communities assign to nature and natural resources, how does this meaning and value inform land use and resource management practices, and how has this meaning and value been affected by *Socio Bosque*?

b. How do the ways in which international environmental conservation efforts and state-led institutions define and describe ecosystems affect and interact with local, Indigenous, place-based understandings of nature?
    i. What policy changes have been implemented as a result of government definitions of ecosystems and how have these changes affected land use and resource management in *Kichwa* communities in Chimborazo?

1.3 Scope

The research is limited in its scope since field work was carried out in only five *Kichwa* communities of Chimborazo, Ecuador, representing less than 1% of the total contracts signed (community and individual) in the *Socio Bosque* program, but close to 3% of the total community contracts. However, the empirical data gathered from these communities provides rich insight into the local complexities of implementing PES programs in Indigenous communities, specifically *Kichwa* communities. As a result, broader assumptions and conclusions can be derived about PES and *Socio Bosque* at large. In order to understand meaningful participation of Indigenous peoples in PES programs, this research will explore the following aspects of the *Socio Bosque* program in Ecuador:

1. the institutionalization of *Socio Bosque* in Ecuador
2. the distribution of incentive payments in five *Kichwa* communities of Chimborazo, Ecuador
3. the epistemic framework of PES programs as compared to that of the *Kichwa* understanding about nature.

1.4 Findings

In what follows, I will make the case that PES programs in Indigenous communities operate within a wider social, political, economic, cultural context that has historically devalued Indigenous *cosmovision*es and practices. In the local contexts of the communities in this research, dominant historical institutions have left an indelible mark on the social norms and practices that frame interactions between the state and Indigenous communities, creating unequal power relations. Therefore, instead of improving Indigenous peoples' well-being, *Socio Bosque* has marginalized Indigenous ways of living and relegated Indigenous peoples' participation within policy-making

decisions on environmental governance and land use to one of representation and not meaningful participation. The implication is that national, state-led program and policies aimed at improving Indigenous communities' wellbeing and contributing to global climate change goals have reproduced and reinforced unequal power relations between Indigenous communities and the state, making Indigenous peoples more vulnerable to the negative effects of climate change. However, in spite of the clear negative impacts of PES programs, Indigenous communities are not passively dominated or "awakened" by outside ideologies or forces. They have found ways to implement their own agendas within the framework of PES projects as a means of sustaining livelihoods and maintaining ties to land, place and space, as well as continuing traditional connections to the communal, the natural, and the divine aspects of nature.

Chapter 2

The Politics of *Sumak Kawsay* and Indigenous Inclusion

This chapter will provide the reader with an understanding of the historical, socio-economic, political, and cultural context within which the research and the *Socio Bosque* program are situated. The purpose of this chapter is to explain how environmental governance in Ecuador takes place within a politics of dichotomy where state policies and programs run counter to Indigenous livelihoods and *cosmovision*es*,* and where various state-led environmental governance policies contradict state-led policies of *plurinacionalidad,* social inclusion, and participation. More specifically, the chapter will discuss the following: first, the politics around the inclusion of Indigenous concepts into mainstream political and social discourse in Ecuador through the use of concepts such as ecosystem services, *cosmovision*es, *sumak kawsay/buen vivir*, *Pachamama*, and the rights of nature; second, the recent (since 2006) plurinational, participatory, and inclusive turn, at least in rhetoric, within Ecuadorian politics and the implications for environmental governance in Ecuador; and, third, the history of the implementation and institutionalization of the *Socio Bosque* program and its connection to the UN's REDD+ program.

2.1 Socio-political Participation in the Revolución Ciudadana

With the election of Rafael Correa in 2006, Ecuador emerged from a decade that saw seven presidents in a ten-year period. While other political parties and leaders, such as Lucio Gutierrez's *Partido Sociedad Patriótica* (Patriotic Society Party), promised inclusion and participation of Indigenous peoples, their governments soon resulted in the co-option of the Indigenous platform (Jameson, 2011; Clark and Becker, 2007). Correa's *Revolución Ciudadana* promised a new era of a plurinational state that proposed "deep ruptures of colonial, oligarchic, and, of course, neoliberal structures" (Acosta, 2019: 85). According to Acosta (2010), the plurinational state

> "requires assuming and processing cultural codes, practices and the stories of Indigenous peoples and nationalities, as well as other peoples: Afro-Ecuadorians and *montubios*. It demands above all to incorporate them as actors -together with the rest of society- in the collective decision-making process" (7).

Correa's government developed a large institutional apparatus for the bureaucratization of citizen participation and social control through the creation of state institutions like the CPCCS (*Consejo de Participación Ciudadana y Control Social*/Council of Citizen Participation and Social Control). The 2008 Constitution provides the guidelines for participation, making civil society the protagonists in decision making, planning and management of public policy and the popular control of state

institutions (Article 95). The same article states that participation is a civil right and provides principles that will orient participation, such as equality, autonomy, public deliberation, respect of differences, popular control, solidarity, and interculturality.

Correa's *Alianza PAIS* political party also represented a turn to more socially progressive and inclusive policies under the guise of a plurinational and intercultural state. Article 1 of the 2008 Constitution defines the Ecuadorian state as "a constitutional state of rights and justice, a social, democratic, sovereign, independent, unitarian, intercultural, plurinational and secular State". The idea of a plurinational state is rooted in the fight of Indigenous peoples and their umbrella organizations, such as CONAIE (Confederation of Indigenous Nationalities of Ecuador) that were instrumental in influencing the 2008 Constitution (Becker, 2011). In 1994, CONAIE's political project proposed a "new plurinational nation" (CONAIE, 1994). According to CONAIE, the plurinational state guarantees the full and permanent collective and individual participation of all nationalities in decision-making and in the exercise of political power (CONAIE, 2012). As a result, participation of all peoples in all aspects of social, political, and economic life is a central theme of the 2008 Constitution. However, the implementation of a plurinational constitution in practical policies was much more difficult for the Correa regime, finding itself at opposition with Indigenous peoples and organizations and accusing them of being "infantile indigenists" (Becker, 2013; González and Javier., 2013). Correa's state-led, socialist policies began to exclude Indigenous groups and marginalize their worldviews which, as Ramiro Ávila Santamaría correctly observes, "without the voice of Indigenous peoples we do nothing but continue the colonizing process of diverse [voices] and strengthen an economic system that oppresses, excludes, and causes pain" (2013: 80)[1]. One of the ways in which Indigenous peoples were marginalized under the *Revolución Ciudadana* was through the use of Indigenous concepts that were incorporated into mainstream political and social discourse but were defined by the state.

2.2 Sumak kawsay and buen vivir: A Changing Role of the State

[1] All documents and interviews originally in Spanish have been translated from Spanish to English by the author.

While the state was the principal force behind development initiatives in the 1960s and 70s, by the 1980s and 1990s the state had largely disappeared from rural Indigenous communities and private institutions and non-government organizations (NGOs) had taken up the state's role that was scaled back due to neoliberal structural adjustment policies. During this time, land reform was replaced with "integral rural development" which was "characterized by the end of the reformist cycle, the proliferation of NGOs (and their associated models of development) as the state and its public policy institutions withdrew, a tendency to frame agendas and priorities in ethnic terms, and parallel increases in land re-concentration and exclusion gaps" (Bretón, 2008: 569). Until the 2000s, Ecuador experienced variations of development programs and policies that were based on NGO and international interventions with minimal state support in rural Indigenous communities. The election of Rafael Correa in 2006 and the subsequent constitutional reform changed the trajectory of the state's role in development. Once again, the state was placed at the centre of social, economic and political reform.

> "The state, then, is placed back in the center of institutional reform to recover for itself a set of strategic capabilities that ensure adequate coordination between politics, economy, and society. Thus, the proposal of institutional reform of the State seeks the recovery of the margins of state maneuverability that is produced under efficient, transparent, decentralized, deconcentrated, and participatory management schemes in order to provide the greatest functional coherency and democratic legitimacy possible." (SENPLADES, 2012: 5).
>
> *El Estado, entonces, vuelve a ser colocado en el centro de la reforma institucional para recuperar para sí un conjunto de capacidades estratégicas que aseguren una adecuada coordinación entre política, economía y sociedad. Así, la propuesta de reforma institucional del Estado busca que la recuperación de los márgenes de maniobra estatal se produzca bajo esquemas de gestión eficientes, transparentes, descentralizados, desconcentrados y participativos, a fin de dotarle de la mayor coherencia funcional y legitimidad democrática posible a sus intervenciones.*

Bringing the state back as the provider of social and economic well-being meant that public funds, bolstered by a burgeoning oil sector, would move production and capital circulation forward and the state would govern the economy (Unda, 2013). While many critiques have been leveled against Correa's state-led development (González et al., 2013), large investments in education and infrastructure were made. However, Correa's successor, Lenín Moreno, has rolled back state interventions and presence, returning to the neoliberal approach fueled by IMF loans, which led to the Indigenous uprising in October of 2019.

In spite of the recent changes within the Ecuadorian state, a pillar of the 2008 constitution was inclusivity and participation. As an offshoot of participation, for the first time in Ecuadorian history the 2008 Constitution incorporated Indigenous concepts rooted in Indigenous *cosmovision*es. Concepts such as *sumak kawsay*, *Pachamama,* and the rights of nature became an integral part of the new Constitution due to the struggle of Indigenous communities and intellectuals, both indigenous and mestizo. The following section will provide an overview of *sumak kawsay*, a phrase that became an integral part of Ecuador's most recent Constitution. The 2008 Constitution has received praise in various circles, such as those advocating Indigenous rights, the rights of nature, and socially and environmentally sustainable development, as "the most ecologically progressive constitution in the world" (Lalander and Merimaa, 2018). The Constitution incorporates the *Kichwa* concepts of *sumak kawsay* and *Pachamama* in the following ways:

> We decide to build a new form of peaceful coexistence, in diversity and harmony with nature, to achieve living well, el Sumak kawsay (*Constitución de la República del Ecuador*, 2008: *Preámbulo*).
>
> *Decidimos construir una nueva forma de convivencia ciudadana, en diversidad y armonía con la naturaleza, para alcanzar el buen vivir, el sumak kawsay*
>
> Celebrating nature, Pacha Mama, of which we are part and which is vital to our existence (*Preámbulo*)
>
> *Celebrando a la naturaleza, la Pacha Mama, de la que somos parte y que es vital para nuestra existencia*
>
> The right of people to live in a healthy and ecologically balanced environment that guarantees sustainability and good living, Sumak kawsay, is recognized (Second Section, Second Chapter, Clean Environment: Art. 14).
>
> *Se reconoce el derecho de la población a vivir en un ambiente sano y ecológicamente equilibrado, que garantice la sostenibilidad y el buen vivir, sumak kawsay.*
>
> The development system is an organized combination, sustainable and dynamic economic, political, socio-cultural, environmental systems that guarantee the fulfilment of the good life, Sumak kawsay (Development Regime, First Chapter, General Principles: Art. 275).

> *El régimen de desarrollo es el conjunto organizado, sostenible y dinámico de los sistemas económicos, políticos, socio-culturales y ambientales, que garantizan la realización del buen vivir, del sumak kawsay.*
>
> Promote the generation and production of knowledge, encourage scientific and technological research, and enhance ancestral knowledge, in order to contribute to the realization of good living, to sumak kawsay. (Eighth Section, Science, Technology, Innovation and Ancestral Knowledge: Art. 387).
>
> *Promover la generación y producción de conocimiento, fomentar la investigación científica y tecnológica, y potenciar los saberes ancestrales, para así contribuir a la realización del buen vivir, al sumak kawsay.*
>
> Nature or Pacha Mama, where life is reproduced and lived, has the right to have its existence and the maintenance and regeneration of its vital cycles, structure, functions and evolutionary processes fully respected. (Chapter 7, Rights of Nature: Art. 71)
>
> *La naturaleza o Pacha Mama, donde se reproduce y realiza la vida, tiene derecho a que se respete integralmente su existencia y el mantenimiento y regeneración de sus ciclos vitales, estructura, funciones y procesos evolutivos.*

Although the concepts of *Sumak kawsay* and *Pachamama* form part of the Constitution, the definition and practical application of these concepts at the state level remains ambiguous, particularly that of *sumak kawsay* since *Pachamama* is used interchangeably with nature/Mother Nature in the Constitution. In the following section I will provide a brief overview of how *Sumak kawsay* is defined by the state, Indigenous leaders, and scholars and outline various critiques of the ultimate state-led definition.

Sumak kawsay has been loosely translated as *buen vivir* in Spanish or "living well" or "good living" in English. However, scholars have pointed out that because of its complexity, there is no accurate translation of s*umak kawsay* into another language and, as such, the concept cannot be defined in simple terms because it is continually under construction and is being lived out in a wide variety of contexts and cultures (Estermann, 2015; Acosta, 2013a; Gudynas, 2011). In the Ecuadorian context, the national government, along with various academics and Indigenous political and economic elite members that formed part of the early stages of the *Alianza PAIS* political party, are responsible for *buen vivir's* inclusion in the 2008 Constitution. As a result, the state has become one of the most

important players in the construction of the concept of *buen vivir*, a concept based on *sumak kawsay* (Acosta, 2009, 2013a). Therefore, it is important to understand the effects of the state's definition and subsequent institutionalization of the Indigenous concept of *sumak kawsay* which provides the framework for environmental governance policies and programs.

According to different scholars, the definition of *sumak kawsay* has evolved within three distinct epistemic communities or "networks of knowledge-based communities" which are indigenous-culturalist, post-developmentalist, and socialist-statist or neo-developmentalist (Cuestas-Caza, 2019; Hidalgo-Capitán and Cubillo-Guevara, 2017). Each epistemic community interprets and defends its own version of *sumak kawsay*. The works of Hidalgo-Capitán and Cubillo-Guevara and Cuestas-Caza argue that the socialist-statist definition has, for the most part, shaped the institutionalization of *sumak kawsay* in Ecuador, renamed *buen vivir*, through the planning and legislation of State-led policies and programs intended to achieve "the good life" (2017; 2019). Proponents of the socialist and statist version of *buen vivir* understand the concept as an extension of socialism rooted in neo-Marxist thinking of intellectuals closely linked to the government (MPD, 2007; SENPLADES, 2009 and 2011; García-Linera, 2010; Ramírez, 2010; Páez, 2010; Patiño, 2010; Santos, 2010; Pomar, 2010). In the particular case of Ecuador, the state-led *buen vivir* became quickly associated with the governing party, *Alianza PAIS*, and its 21st Century Socialism (Ramírez, 2010; Patiño, 2010; Harnecker, 2010). This view of *buen vivir* argues for an increased role of the state in implementing policies to achieve development (SENPLADES, 2011). As a result, the state becomes that main political agent and sole interpreter of the definition and implementation of *buen vivir*. Hidalgo-Capitán and Cubillo-Guevara argue that this has marginalized and excluded social movements, such as the Indigenous and ecologist movements that were instrumental in bringing *buen vivir* to the forefront of political debate (Hidalgo-Capitán, 2017: 28).

Rafael Correa, President of Ecuador from 2007 – 2017 and leader of the *Alianza PAIS* political party that was instrumental in bringing *buen vivir* into mainstream political and development discourse in Ecuador, embodies the Ecuadorian state's vision of *buen vivir* when he said the following:

> "What 21st Century Socialism is we began to call *Buen vivir* Socialism, but they are the same thing. In defining it (*buen vivir*), basically it keeps the same

> characteristics of traditional socialism, for example social justice…[and] supremacy of the human being over capital" (teleSur, 2013)
>
> *"Lo que es el socialismo del siglo 21 empezamos a llamar el socialismo del buen vivir, pero son la misma cosa. Para definirlo, básicamente guarda las mismas características del socialismo tradicional, por ejemplo, la justicia social [y] supremacía del ser humano sobre el capital."*
>
> "That is how *Socialismo del buen vivir*'s arose, whose central axis is the social and solidary person. [It] is nurtured by socialism of many types, including the classical or scientific, but also the agrarian socialism of Emiliano Zapata and the Andean socialism of the Peruvian Jose Carlos Mariategui, the social doctrine of the church and the theology of liberation, and the long history of emancipatory struggles of our peoples" (Correa, 2017)
>
> *Así surgió el Socialismo del buen vivir, cuyo eje central es el individuo social y solidario. El Socialismo del buen vivir se nutre de la combinación reflexiva de muchos socialismos, incluido el clásico o científico, pero también el socialismo agrarista de Emiliano Zapata, el socialismo andino del peruano José Carlos Mariátegui, la Doctrina Social de la Iglesia y la Teología de la Liberación, y de la larga historia de luchas emancipadoras de nuestros pueblos*

These quotes provide a clear understanding of Correa's view, and that of his followers, on *buen vivir*. For Correa and his political affiliates, *buen vivir* is intrinsically related to socialism in its varying forms. More specifically, the 2013 *Plan Nacional para el Buen vivir* states *socialismo del buen vivir's* (socialism of good living) ultimate goal is "to defend and strengthen society, work and life in all its forms" by questioning "the dominant pattern of hegemonic accumulation (neoliberal models of production, growth and distribution)", and it "demands a deep democracy and the constant involvement of its citizens in the country's public affairs" (SENPLADES, 2013: 22).

The socialist-statist's incorporation of ancestral knowledge into its conceptualization of *buen vivir*, which is an integral part of the indigenous-culturalist view of *sumak kawsay*, is superficial, causing State-led actors to appropriate and institutionalize the Indigenous concept as a political project. This appropriation is achieved through various legal and political instruments, such as the 2008 Constitution and national development plans (Simbaña, 2012). The Ecuadorian state's definition of *buen vivir* argues for an increased role of the state in implementing policies to achieve development and redistribute wealth (SENPLADES, 2011; Serrano and Guijarro, 2012). With the state as the central actor in the implementation of policies to achieve *buen vivir,* the government seeks to nationalize development planning and environmental governance through various programs, such as the Yasuni ITT Amazon conservation project and *Socio Bosque*. Ministerial Agreement 131 directly

links *Socio Bosque* with *buen vivir* by stating that *Socio Bosque* 's principal objective is "to integrate incentive initiatives into a single national program, seeking an integral intervention in the territory and promoting an improvement in the living conditions of the inhabitants in adherence with *Buen vivir*" (Ministerial Agreement 131). State environmental governance projects like *Socio Bosque* are clearly linked to the government's achievement of *buen vivir* and, as such, are guided by the social, economic and political discourses surrounding the concept.

As the above discussion indicates, the politics of *buen vivir* has provided an opportunity for Indigenous participation and inclusion in larger social, economic, and political debates and frameworks in Ecuador. However, incorporating *buen vivir* into policies and programs has been driven by a hegemonic definition of the concept that can be linked to the statist-socialist perspective of development. Various Indigenous scholars and activists critique the state definition of *sumak kawsay* and provide an understanding of the indigenous perspective of *sumak kawsay*. The concept is rooted in the indigenous epistemology and *cosmovision* that proposes a "different type of society based on reciprocity, conviviality, sustainability, complementarity, the dematerialization of life, and the break from the uni-linearity of progress and development immanent in the hegemonic, Occidental vision" (Bretón et al., 2014: 9). Ecuadorian scholar and indigenous politician Luis Macas describes *sumak kawsay* in the following way:

> "[Sumak kawsay] is the essence of the system of communal life and it is explained in the daily practices of our communities. It is the vital, civilizing matrix of our peoples, which is still valid despite the violent interruption of colonialism and aggression of the capitalist model…*Sumak* means fullness, greatness, justice, and the superior. *Kawsay* is life in a permanent, dynamic and changing fulfilment. It is interaction of all existence in motion and life understood from the integral. It is the essence of all being. Therefore, Kawsay is to 'be being'. *Sumak kawsay* is the fullness of life. It is the result of the interaction of human and natural existence. It is the permanent construction of all life processes in which the following are expressed: harmony, internal and external balance of the entire community life, not only human aspects but also natural." (Macas, Sumak kawsay)

> *"[Sumak kawsay] es la esencia del sistema de vida comunitaria y se explica en el ejercicioy práctica cotidiana de nuestras comunidades, es lo vital de la matriz civilizatoria de nuestros Pueblos, que aún tiene vigencia, a pesar de la interrupción violenta de la colonialidad y la agresión del modelo capitalista…Sumak, significa plenitud, grandeza, lo justo, completamente, lo superior. Kawsay, es vida en realización permanente, dinámica y cambiante. Es interacción de la totalidad de existencia en movimiento, la vida entendida desde lo integral, es la esencia de todo ser vital. Por*

> *tanto, Kawsay es, estar siendo. El Sumak Kawsay, es la vida en plenitud, es el resultado de la interacción, de la existencia humana y natural. Es decir, que el Sumak Kawsay es el estado de plenitud detoda la comunidad vital. Es la construcción permanente de todos los procesos vitales, en las que se manifiesta: la armonía, el equilibrio, interno y externo de toda la comunidad no solo humana, pero también natural"*

Macas argues that by translating the concept from *Kichwa* to the common Spanish term *buen vivir* (living well), the term *sumak kawsay* loses its true meaning. For Macas, these two terms are incompatible in both the semantic and thinking forms. By translating *sumak kawsay* to *buen vivir*, the true meaning of the term is diminished. Macas posits that *sumak kawsay* is

> "an institution and an experience that springs from the heart of the system of community life...the concept of Good Living, from the Western view corresponds to the thought of the current system and fits into your [Western] model, applicable to improve this system. We believe that the *Sumak kawsay* and the Good Life are two completely opposing views." (Macas, Sumak kawsay).

> *"una institución, una vivencia que nace de las entrañas del sistema de vida comunitario y solo es aplicable en este sistema. El concepto del Buen Vivir, desde la visión occidental corresponde al pensamiento del sistema vigente y se inscribe en su modelo, aplicable a mejorar este sistema. Por lo que consideramos, que el Sumak Kawsay y el Buen Vivir, son dos concepciones totalmente contrapuestas"*

In *Kichwa*, *buen vivir* is translated as *alli kawsay*, which refers to the good or desirable. For Guandinango and Carrillo(2012), *sumak kawsay* is a process in construction which, at times, is romanticized as an alternative to the individualistic and economistic development that is void of values, such as reciprocity and communal commitment. Therefore, Guandinango and Carrillo prefer to speak in terms of *alli kawsay* which "reflects the daily experiential practice of the *Kichwa* peoples; is an inherited understanding from generation to generation, with historical and social bases; begins with the *runa* (human being), *ayllus* (families) and *llaktas* (communities), and in turn, the positive way to solve their needs; energizes the community and participatory economy and strengthens the social fabric of a territory" (2012: 12). During my time in the field, the concept of *sumak kawsay* came up in numerous interviews and focus groups. Below are some of the local definitions recorded during my time in the field, showing that *sumak kawsay* is a complex term that is not encompassed under one definition.

"*Sumak kawsay* has nothing to do with things, but with family. We have received you here and you willingly receive us. We are talking about a closeness." (*Mamita* interviewed in Community 3, 2018-03-26)

"Sumak kawsay no tiene que ver con cosas…familia…te hemos recibido acá y tú nos recibes con voluntad. Estamos hablando de un acercamiento."

"Living well, freedom, having enough native food, breathing fresh air, community life, sharing *mingas* (communal work), sessions, festivals, and community food." (*Tayta* interviewed in Community 4, 2018-03-12)

"Vivir bien, libertad, tener alimentos nativos, suficiente, respiración de aire puro, la vida de la comunidad – compartir las mingas, sesiones, las fiestas, comida comunitaria."

"*Sumak kawsay* is God in the heart of every man and woman." (*Mamita* interviewed in Community 4, 2018-03-12)

"Sumak kawsay es Dios en el corazón de cada hombre y mujer"

"Freedom so we do not live like before. To educate our children. We are not exploited like before. We consume what we sow from our fields…To have and to care for the *páramo*….All of that is good living" (Mamita interviewed in Community 4, 2018-03-12)

"Libertad para no vivir como más antes. Educar a nuestros hijos. No somos explotados como antes. Consumir lo que nosotros sembramos de nuestro campo…Tener el páramo y cuidarlo. Todo eso es buen vivir."

"Anyone can give a definition to the word *sumak kawsay*, but in reality and in practice we are not reaching the good life. To have *sumak kawsay*, we must first have the guarantee of conserving water. Second, we must cease to contaminate *Pachamama* with pesticides and agrochemicals. Third, there must be food security and family economic development. Taking all these points, we have to be in good health. If we have good health, we can guarantee good living." (*Tayta* interviewed in non-Socio Bosque community, 2019-08-13).

"Cualquiera puede dar una definición de la palabra sumak kawsay, pero en la realidad y en la práctica no estamos llegando al buen vivir. Para tener el sumak kawsay, primero tenemos que tener la garantía de conservar los páramos por el agua. Segundo, dejando de contaminar la Pachamama, seguimos utilizando agroquímicos y agrotóxicos. En tercer lugar, debe haber la seguridad alimentaria y desenvolvimiento económico familiar. Cogiendo de todos estos puntos tenemos que tener el buen vivir".

"Before, everything was organically planted with animal manure (cow, sheep, donkey). We did not spend money buying the compost and that was *sumak kawsay*. Nowadays, everything is with chemicals or it [the soil] does not want to produce. We are enriching only the large corporations and intermediaries. For this reason, I think it is urgent we take care of the earth" (*Tayta* interviewed in non-Socio Bosque community, 2019-7-10)

"Antes todo se sembraba orgánicamente con el estiércol de los animales (vaca, ovejas, burrito) no gastábamos comprando el abono eso era el sumak kawsay. Hoy en día todo es con químicos ni así no quiere producir. Mejor estamos enriqueciendo solo a los grandes empresarios e intermediarios, hasta para la preparación de la tierra utilizamos tractor agrícola. Por esta razón pienso que nos urge cuidar la tierra"

"If we talk about *sumak kawsay*, there should be no discrimination. There must be equality for men and women, Indigenous and mestizo. But there is racial discrimination, ideological discrimination, and religious and political discrimination. We are so divided in a small county, if we continue like this, we will never achieve *sumak kawsay*." (*Tayta* interviewed in non-Socio Bosque community, 2019-07-10)

"Si hablamos del sumak kawsay, no debe haber discriminación. Tiene que existir la igualdad para hombres y mujeres, indígenas y mestizos. Pero existe discriminación racial, discriminación ideológica y discriminación religioso y político. Estamos tan fraccionados en un pequeño cantón, si seguimos así nunca lograremos el sumak kawsay."

"To really live *sumak kawsay* we first have to thank God. Second, respect *Pachamama* and talk with her." (*Tayta* interviewed in non-Socio Bosque community, 2019-07-26).

"Para vivir realmente el sumak kawsay primero tenemos que agradecer a Dios, en segundo lugar, respetar la naturaliza y conversar con ella."

"*Sumak kawsay* is living from *Pachamama*…it is to achieve harmony in a relationship of respect for man towards *Pachamama* because *Pachamama* is always offering us its benefits, that is *sumak kawsay*. The economic issue is not so much from the Capitalist-Westernist model. Rather, from the Andean world, how we live is thanks to *Pachamama* with the resources it offers us: soil, land, air, and life itself. So, for us *sumak kawsay* is to achieve balance and harmony between the human being and nature. Much has been said and done in the name of *sumak kawsay*, [and] many have become rich and have politicized *sumak kawsay*. That is why we say a*lli kawsay* is man-nature harmony and mutual respect." (*Tayta* interviewed in non-Socio Bosque community, 2019-07-10)

"El sumak kawsay es justamente vivir de la Pachamama…es lograr la armonía en una relación de respeto del hombre hacia la Pachamama. Porque la Pachamama siempre nos está

brindando sus bondades para nosotros eso es el sumak kawasay. No es tanto el tema económico desde el modelo Capitalista – Occidentalista. Mas bien desde el mundo andino como vivimos es gracias a la Pachamama con los recursos que nos ofrece: suelo, tierra, aire tema vida en sí. Entonces para nosotros el Sumak Kawasay es lograr el equilibrio y la armonía entre el ser humano y la naturaliza. Que es para nosotros vivir dignamente bien, aunque ya está muy chillado diciendo el Sumak Kawsay y que han aprovechado mucho en nombre del Sumak Kawsay, muchos se han hecho ricos y han politizado el Sumak Kawsay. Por eso nosotros decimos el Alli Kawsay es la armonía hombre – naturaliza y el respeto mutuo."

"Sumak kawsay really exists when we live harmoniously with our family and within our community. If we live fighting with each other, good living is no longer. In the same way, we must live respecting the animals and be close to *Pachamama* at all times." (*Mamita* interviewed in non-Socio Bosque community, 2019-08-14)

"El Sumak Kawsay realmente existe es cuando vivimos armónicamente con nuestra familia y dentro de nuestra comunidad. Si vivimos peleando los unos con los otros ya no el buen vivir. Igual debemos vivir respetando a los animales y junto a la Pachamama en todo momento."

2.3 Rights of Nature

One of the ways in which *sumak kawsay/buen vivir* was institutionalized as a concept within the Ecuadorian state was through granting rights to nature in the 2008 Constitution. Proponents of the rights of nature argue that providing nature with rights draws from Indigenous *cosmovision*es and supposed harmonious relationships with nature. The Ecuadorian Constitution was the first to enshrine the rights of nature globally. However, there is debate among scholars about the significance of granting nature rights in the Ecuadorian Constitution, which uses the concept of *Pachamama* interchangeably with that of nature. According to Gudynas, this interchange places traditional knowledge represented in the concept of *Pachamama* on the same hierarchical level as European knowledge that has subordinated Indigenous thinking since colonial times (Gudynas, 2016). The incorporation of Indigenous concepts into the mainstream political discourse and legislation in Ecuador can be classified as beneficial discourse that when "incorporated within the mainstream discourses that surround us they can start to have an impact on the stories-we-live-by" (Stibbe, 2015: 33). The inclusion of the rights of nature into the Ecuadorian Constitution and public policy realm represents a paradigmatic shift in thinking about the environment from a purely anthropocentric (man-centred) view to a more biocentric (nature-centred) view (Gudynas, 2016). In

other words, nature passes from being an object to a subject of rights that possesses intrinsic value that is separate from the utility value placed on nature by humans (Gudynas, 2010: 5).

However, a number of scholars are critical of the incorporation of Indigenous discourse into mainstream political thought and practice in Ecuador and some argue that it can be counterproductive and harmful (Recasens, 2014; Sanchez-Pargo, 2011; Mignolo; 2011; Gudynas, 2009). Some authors dispute the rights of nature as an expression of *buen vivir* by arguing that rights are always "personal qualities and only exist when they are exercised by a person" (Sanchez Parga, 2011: 39) and, therefore, the rights given to nature are withdrawn from human beings, making nature a personal subject and, as a result, nature becomes "denaturalized" and human beings "depersonalized" (Sanchez Parga, 2011: 39; Recasens, 2014). Thus, by including rights of nature in the Constitution, a competing set of rights, those of nature and those of human beings is brought to the forefront.

Whether or not nature should have rights is not a new debate. Roderick Nash (1989) provides a detailed account of the history of the debate showing that Greek and Roman philosophers argued that animals had "inherent or natural rights independent of human civilization and government", a concept known as *jus animalium* (Nash, 1989: 1). In its modern form, the theoretical underpinnings of the rights of nature began to gain traction through the writings of Nash, Thomas Berry (2001) and Cormac Cullinan (2003). In the Ecuadorian context, the rights of nature entered the discussion of the new constitution being drafted in the coastal town of Montecristi through the governing political party *Alianza PAIS*, through the writings of a local academic and politician of the governing party who was President of the Constitutional Assembly, Alberto Acosta, and one of Latin America's most iconic journalists and novelists, Eduardo Galeano. Acosta and Galeano were particularly influential in shaping the constitutional debate surrounding the rights of nature in Ecuador. Acosta, who is an economist, has always defended environmentalist postures within his work (see Acosta, 2009, 2013a).

Galeano, who is best known for his historical work *The Open Veins of Latin America*, wrote an essay entitled "Nature is not Mute" that was read during the discussion of the new Constitution and, according to Acosta, consolidated a position on the debate surrounding the rights of nature that did not seem promising at the beginning of the constitutional process. In the article Galeano states that

> "since the sword and the cross landed on American soil, the European conquest punished the worship of nature, which was the sin of idolatry, with punishments of lashing, gallows or fire. The communion between nature and people, a pagan custom, was abolished in the name of God and then in the name of Civilization. In all of America, and in the world, we continue to pay the consequences of that compulsory divorce" (2008).

The process of incorporating the rights of nature into the Ecuadorian constitution was not void of external global influence. Gudynas (2009) argues that a number of different international NGOs and environmentalists were involved in various consultation roles that heavily influenced the constitutional debate. One justification for incorporating the rights of nature into the constitution was that it was a legal representation of the harmonious relationship that the Indigenous have with *Pachamama*.

2.4 The Nature Dichotomy

The operationalization of Indigenous concepts, such as *sumak kawsay*, has resulted in a dichotomy between Indigenous perspectives and lived realities and the state's hegemonic definition and implementation of *buen vivir*. A dichotomic tension can be seen in the inclusion of the rights of nature in the Constitution. The tension between competing sets of rights, those of nature and those of human beings, is exemplified in various sections of the Ecuadorian Constitution. Chapter 7 of the Constitution states that "Nature, or *Pachamama*…has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes" and that the "State shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem" (*El Estado incentivará a las personas naturales y jurídicas, y a los colectivos, para que protejan la naturaleza, y promoverá el respeto a todos los elementos que forman un ecosistema*) (Article 71). Article 14 states that the population has the right "to live in a healthy and ecologically balanced environment that guarantees sustainability and the Constitution recognizes the good life (*sumak kawsay*)" (*Se reconoce el*

derecho de la población a vivir en un ambiente sano y ecológicamente equilibrado, que garantice la sostenibilidad y el buen vivir, sumak kawsay).

However, Articles 283 and 284 say that the state will promote an economic system that sees the human being, not nature, as the subject and an end. The state will ensure the

> "material and immaterial conditions that can bring about the good way of living…[through] national production, systemic productivity and competitiveness, the accumulation of scientific and technological knowledge, strategic insertion into the world economy, and complementary productive activities within regional integration" (Constitution, 2008).
>
> *"las condiciones materiales e inmateriales que posibiliten el buen vivir…[a través de] la producción nacional, la productividad y competitividad sistémicas, la acumulación del conocimiento científico y tecnológico, la inserción estratégica en la economía mundial y las actividades productivas complementarias en la integración regional."*

SENPLADES - *Secretaría Nacional de Planificación y Desarrollo* (National Secretariat for Planning and Development) - exemplifies the institutionalization of *sumak kawsay/buen vivir*. SENPLADES was created to "lead, coordinate and articulate medium and long-term planning, aimed at the sustainable and inclusive development of the country, which improves the quality of life of the population" (SENPLADES, 2020).[2] The current national development plan (*Plan Nacional para el Desarrollo 2017-2021*) created by SENPLADES has the specific goal to reduce deforestation rates by 15% by 2021, as well as to promote environmental conservation, reforestation, and the adequate and responsible use of water sources (SENPLADES, 2017).

However, the dichotomous relationship between state rhetoric and policy is exemplified in the attempts to operationalize *sumak kawsay* or justify industries, such as the extractive industry, under the guise of *buen vivir*. These policies can run counter to the preservation of ecosystem biodiversity and the rights of nature. For example, under Correa the Ecuadorian state has increased its extractive industries, specifically opening up its nascent mining industry. In 2012, then president Correa made a clear statement on his government's view about opening up the mining industry to national and international investment when he stated "*No podemos ser mendigos sentados en un saco de oro*" (we can't be

[2] Original Spanish: "Liderar, coordinar y articular la planificación a mediano y largo plazo, orientada al desarrollo sostenible e incluyente del país, que mejore la calidad de vida de la población."

beggars sitting on a bag of gold) (Erazo, 2012). It was clear that Ecuador was prioritizing mining as a "national interest" and, with the election of Correa's successor Lenin Moreno, the country has increasingly opened its doors to foreign investors in the mining sector (Guambaña, 2019). What runs counter to the rights of nature is that mining is one of the most environmentally destructive extractive industries and has detrimental social and cultural impacts, specifically on Indigenous communities (see Magdaleno, 2018; Bebbington, 2012). In its National Mining Plan, the government of Ecuador sees mining as

> "part of the strategic sectors, and, therefore, it is a priority for the National Government. For this reason, public policies are proposed that accelerate the mining sector's development in favor of national interests, such as changing the productive matrix and contributing to GDP with the goal of increasing the development of projects in the mining sector, materializing strategic mining projects, and generating a new portfolio of projects that increase and contribute to the growth of the national economy" (Ministerio de Minería, 2016: 155).
>
> *"La minería es parte de los sectores estratégicos, y por consiguiente es de prioridad para el Gobierno Nacional,para el efecto se plantean políticas públicas que aceleren su desarrollo en favor de los intereses nacional como el cambio de la matriz productiva , aporte al PIB, con el fin de aumentar el desarrollo de proyectos del sector minero, materializando losproyectos estratégicos mineros, y generando una nueva cartera de proyectos que incrementen y contribuyan al crecimiento de la economía nacional"*

Gudynas refers to this increased role of the state in the extractives industry as "progressive neo-extractivism" that redistributes profit from these industries through social policy (Gudynas, 2011). However, Dávalos (2013) argues that the increased role of the extractive industry has nothing to do with progressive policies, but has always been "a matter of geopolitics to expand the extractive frontier and to be able to guarantee legal security to investors and their companies, criminalizing [Ecuadorian] society" (212).

This policy stance would seem to be in opposition to the rights of nature. As a result, many authors were quick to point out the existing gap between the theoretical rights of nature expressed in the constitution and the expansion of resource extraction policies and activities for economic and social development in Ecuador (Kauffmann and Martin, 2016; Morley, 2017). The debate surrounding the rights of nature and the institutionalization of *sumak kawsay/buen vivir* expressed in various public policies is an ongoing debate. My empirical research from Chimborazo shows that while

communities understand that constitutionally nature has rights, they are unsure about the practicality of implementing these rights. Members of one focus group stated that "we don't fully understand the concept of the rights of nature and what it means. Maybe you can explain it to us?" This comment indicates the complexity of giving rights to nature.

While the debate is important, the practical implications of constitutionalized rights of nature helps to set *Socio Bosque* within a particular framework that is unique to Ecuador. This framework obligates the state to carry out various programs that ensure the sustainable use of nature while, at the same time, balancing communities' rights to *buen vivir* and sustainable livelihoods. As a result, environmental governance within this social, political, and economic context has become a priority. *Socio Bosque* has been championed by the state as a policy solution to conserve nature's rights (MAE, 2019). Therefore, the institutionalization of the *Socio Bosque* program takes place within the complex, and often times debated, framework of the rights of nature. The politics of *buen vivir* also shows the complexities of defining an Indigenous concept that is rooted in the cultural, spiritual, economic, and political practices of Indigenous life, which has proven to be difficult for the Ecuadorian state. Furthermore, the implementation of policies and programs meant to achieve *buen vivir* have, at times, caused conflict with Indigenous *cosmovision*es and ways of living, creating a dichotomy between the inclusive and participatory discourse of the state and the daily lives of indigenous communities that reflect the praxis of concepts like *sumak kawsay*.

2.5 Participation in the Context of Historical Marginalization

With the Election of Rafael Correa and his *Alianza PAIS* political party, the Ecuadorian state moved towards more inclusionary and participatory decision-making processes under a plurinational state.[3] However, studies have shown that even under the *Revolución Ciudadana*, participation within the socio-political-economic context of Ecuador is complex and often benefits historically dominant elites (North and Clark, 2018), and within the specific context of Chimborazo the issue of

[3] The 2008 Constitution mentions citizen participation in numerous sections. Various mechanisms to guarantee participation were implemented, such as participatory budgeting, local citizen councils and the national Citizen Participation and Social Control Council (CPCCS) whose mission is to "promote and encourage the exercise of rights related to citizen participation, to promote and establish social control mechanisms in matters of public interest…"

participation becomes even more complex as Indigenous communities have been historically marginalized from meaningful participation in social, political and economic spheres (Lyons 2006, 2016; Cameron, 2009). While gains were made in the political sphere in the late 1990s and early 2000s with the national Indigenous political party, *Pachakutik* (see Becker, 2008; 2010 and Clark and Becker, 2007), in recent years the social and political organization of Indigenous communities has been weakened by corruption, alliances with traditional political parties and elites, and a feeling of discontent and disconnection from the community base these organizations supposedly serve (Tuaza, 2011; Mijeski and Beck, 2011). Furthermore, a centralized state in Ecuador has created new challenges for meaningful inclusion and participation of Indigenous peoples in climate change strategies.

Lewis (2016) notes that the *Revolución Ciudadana* strengthened the state as an actor in environmental governance and resource management and, as a result, "struggles that had been formerly waged between ecoresisters[4] and resource extractors (mostly transnational corporations) are being played out between activists and the state" (163). The conflict between the state and civil society was brought to the forefront in the recent 2019 political crisis that saw Indigenous and civil society organizations protest throughout the country. The protests ended in violence and saw the death of 8 protestors and over 1,300 people injured (Collyns, 2019). While the demands of the protestors were many and focused on the implementation of recent IMF loan austerity measures[5], the heightened tensions between the state and Indigenous communities suggests a lack of clear and meaningful participation and inclusion of these communities in larger policy debates and implementation. In spite of a socially progressive constitution that lays the groundwork for an inclusive, plurinational state, the implementation of neoliberal, state-led, environmental governance policies continues to marginalize Indigenous peoples.

[4] Ecoresisters are "national, regional, or local-level actors that receive little to no resources from abroad" who are adversarial to the state and who are "against neoliberal model; formulating alternatives; favors buen vivir/sumak kawsay" (Lewis, 2016: 46-47).

[5] While the main focus of the protests was the removal of fuel subsidies which lead to the increase of food and basic goods, Indigenous communities expressed concern over a state abandonment of rural areas and livelihood priorities of Indigenous communities in exchange for a prioritization of international, corporate interests (*El Universo*, 2019; CONAIE, 2019)

The concern with environmental governance programs like PES is that new and historically hegemonic forms of authority and appropriation can be maintained and implemented under the guise of Indigenous inclusion and participation and through the reorganization of social relations and relations to space and place. As Fairhead, Leach and Scoones note, appropriation comes in many forms, including through the restructuring of relationships, norms and practices by which "land or resources are removed from the control of their prior users, or access and use rights are limited" (Fairhead et al., 2012: 247). In the context of Ecuador, relationships between the state and Indigenous communities are clientelist. According to Freidenberg and Pachano, within Ecuador there are "clientelist political practices where parties not only count on great experience but also on an apparatus that guarantees their reproduction…[and] the parties end up converting themselves into instruments [of populism and clientelism]. (2016: 156). Pachano (2001, 2008) argues that, in spite of a more participatory rhetoric, clientelist practices continued under the Correa regime through state institutions that "operate under a different logic and respond to other motivations and operate through other mechanisms" (2001: 31). The important question is, can true inclusion and participation of Indigenous peoples and their *cosmovisiones* (worldviews), which are represented in livelihoods, land use, and resource management practices, take place within PES programs in a local context that has historically marginalized and, at times, violently oppressed Indigenous ways of living and being?

2.6 The History of Socio Bosque

Well before the launch of *Socio Bosque* in 2008, various environmental governance programs began to pave the way for the country's first national payment for ecosystem services program. Even before the programs outlined below began, Ecuador's National Biodiversity Strategy (*Estrategia Nacional de Biodiversidad)* (2001) discussed ecosystem services and proposed the establishment of a "payment system for environmental services of native forests, mainly in watershed protection and water supply, soil conservation, protection of floods and other services related to global climate change" (13).[6] The document discusses ecosystem services extensively and it is clear that as early as 2001 the government of Ecuador saw a "profitable market for the environmental services of the ecosystems"

[6] Original Spanish: *sistema de pago por servicios ambientales de los bosques nativos, principalmente en la protección de cuencas y provisión de agua, conservación de suelos, protección de inundaciones y otros servicios relativos al clima global*

of the country and lays out various steps that needed to be taken to set up a national payment system for environmental services (40).

One of the first experiences of large environmental conservation projects involving PES schemes in Ecuador is that of PROFAFOR (*Programa FACE de Forestación* – FACE Forestation Program). PROFAFOR was created as part of the FACE program (Forests Absorbing Carbon-dioxide Emissions), which was supported by four Dutch electric companies to offset their carbon emissions. The project provided financing for forestation projects, with incentives between $68-$199 USD per hectare (Albán and Argüello, 2004). Since 1993, PROFAFOR has reforested approximately 24,000 hectares and signed 154 forestation contracts with communities and private landowners (Albán and Argüello, 2004). In Chimborazo, PROFAFOR signed 13 forestation contracts with Indigenous communities (Pillco et al., 2019). However, the following criticisms have been made about the PROFAFOR: 1) contracts with communities last from 25 to 99 years, are non-negotiable and do not allow the communities to carry out any activities on the land; 2) 30% of the sale of the lumber at the end of the contract must be given back to PROFAFOR; and 3) communities must provide free labour and upkeep of the forest plantation (Albán and Argüello, 2004; MMBT, 2006,). FACE also has a forestation project that promotes pine and eucalyptus plantations as economic alternatives for local communities. These tree species have adverse effects on local water sources and many communities have experienced these effects first hand, such as a loss of productive land (Magdaleno, 2018).

A second PES program involved payment for water services in the municipalities of Pimampiro (2000), El Chaco (2004) and Celica (2006). Each municipality launched a payment for services program to protect ecosystems surrounding their water sources. In each case, local residents were charged an additional fee for their water use for human consumption and these funds were then paid out to property owners to protect land where vital sources provided water to the municipality (Camacho, 2008). Finally, a third conservation project that influenced *Socio Bosque* was a project implemented in 2003 by the German International Cooperation (GIZ) and Conservation International (CI). The program worked with the *Chachi* Indigenous community in order to preserve 7,200 hectares of forest adjoining the Cotacachi-Cayapas Ecological Reserve which led to the

creation of the Chachi Grand Reserve (Speiser et al., 2009). In 2005, the *Chachis* negotiated annual economic compensation of $36,000 through funding from GIZ, CI, and USAID (United States Agency for International Development), and the funds were invested into community development that was agreed upon by a committee formed of local community members and representatives from GIZ and CI (Grieber and Schiele, 2011)[7]. The table below provides a timeline of these various projects, as well as Ecuador's REDD+ accomplishments, which are important to understand the current connection between *Socio Bosque* and REDD+ initiatives in the country.

Table 1: History of *Socio Bosque*

***Socio Bosque* History**	
PROFAFOR	
1993	PROFAFOR (Programa FACE de Forestación) begins to establish and manage forest plantations to contribute to climate change mitigation.
	Local Municipal Incentive Based Conservation Projects
2000	Pimampiro
2004	El Chaco
2006	Celica
GIZ Chachi Gran Reserva Project	
2004	The program worked with the Chachi indigenous to preserve 7,200 hectares of forest
Socio Bosque	
2008	*Socio Bosque* began as a pilot project in limited communities and in November SENPLADES set up *Socio Bosque* as an official MAE ministry project
2009	Implementation of *Socio Bosque* began at the national level
	Socio *Páramo* was developed as a separate branch of *Socio Bosque*
REDD+	
2009	Ecuador entered into discussion with REDD+
2012	National Climate Change Strategy (2012 – 2025) developed
	Framework for REDD+ political, operational, institutional, and normative preconditions established (2012 – 2014)
2016	National REDD+ Action Plan developed and established (*Plan de Acción REDD+: Bosques para el Buen vivir)*
2017	Ecuador is the 2nd country worldwide to complete the REDD+ preparation phase

In September 2008 *Socio Bosque* became an official ministry project through ministerial agreement #169, invoking various articles in the 2008 Constitution which says that the Ecuadorian state has the duty to plan national development, eradicate poverty, and promote sustainable development, while protecting the natural and cultural heritage of the country (Article 3: 7 and 7). The agreement also cites Article 71 of the Constitution which says, "the state shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements

[7] The Greiber and Schiele document, *Governance of Ecosystem Services: Lessons Learned from Cameroon, China, Costa Rica, and Ecuador,* was published by the IUCN (International Union for the Conservation of Nature) in 2011 and makes no mention of *Socio Bosque* within its case study of Ecuador.

comprising an ecosystem" (*El Estado incentivará a las personas naturales y jurídicas, y a los colectivos, para que protejan la naturaleza, y promoverá el respeto a todos los elementos que forman un ecosistema).* Finally, the agreement states that on July 2, 2008, SENPLADES declared *Socio Bosque* as a national priority project. Full country-wide roll out of *Socio Bosque* began in 2009 and the separate branch of *Socio Páramo* was developed to meet the specific needs of communities and individuals in the *páramo* ecosystem. One of the main concerns of the program is its financial sustainability. Even though the program represents only 0.02 – 0.03% of the national budget, the program is not seen as an integral part of national development (Lascano, 2015). As a result, strategic alliances with international agencies and climate change funding, such as REDD+, GEF (Green Environmental Fund) and GCF (Green Climate Fund), are seen as a solution to the problem of financial sustainability (MAE, 2012; MAE, 2013).

2.7 Socio Bosque, International Finance and Sustainability: A REDD Solution?

Since its inception in 2008, *Socio Bosque* has had the support of various international organizations. The program, as well as the Ecuadorian government, has been lauded as a success by international environmental governance actors and institutions (Vander Velde, 2015; UNREDD 2018). Pierre-Yvez Guedez, Senior Regional REDD+ Technical Advisor of the United Nations Development Programme's Climate and Forests Team, reaffirmed the UNDP's support for the program and praised *Socio Bosque* as a reference for other countries "for its willingness to base actions on fundamental elements such as poverty reduction, sustainable development, indigenous rights, food sovereignty, adaptation and mitigation of climate change" (Reliefweb, 2018). Guedez also praises the program for being a "platform that integrates representatives of government, NGOs, and producers…[and] will undoubtedly contribute to several of the Sustainable Development Goals" (Reliefweb, 2018). The international attention placed on *Socio Bosque* has come with funding to support the program, but a lack of steady financial resources is a problem that continues to plague *Socio Bosque*. It is currently not a public policy and, therefore, does not have a specific budget allocated annually. The program depends on the overall MAE budget and on international financing. In a number of interviews with government and NGO representatives, the long-term financial stability of the program was a main concern. Various solutions were discussed, such as making *Socio Bosque* a solidified public policy. One representative stated that "if *Socio Bosque* were

like the *Bono de desarrollo humano* (Human Development Bond)[8], which was implemented as a policy in 1998 and has become an important part of the lives of those in need, then Ecuadorians would not allow for the program to be dissolved, and they would fight to maintain it, much like they do the *bono*. As it stands, *Socio Bosque* is at the whims of the current regime and relies on international funding to sustain itself". The section below will explore the evolution of *Socio Bosque* from a national, sovereign environmental governance program into a possible mechanism for international climate change frameworks and goals, such as REDD+.

Socio Bosque was created originally as a sovereign effort of the Ecuadorian state to combat climate change and was not tied to other international conservation and mitigation efforts, such as the UN-REDD+ (Reducing Emissions from Deforestation and Forest Degradation). In the beginning phases of the program, MAE and the Ecuadorian government made a clear distinction between *Socio Bosque* and REDD+ initiatives (MAE, 2012: 28). However, the program has made various contributions to the outcomes of REDD+ by providing technical inputs and facilitating stakeholder consultations and has positioned Ecuador as a global leader in REDD+ (UN-REDD, 2018). Ecuador began receiving support from the REDD+ program in 2011 and became the second country in the world to complete all the necessary requirements to receive results-based payments from meeting REDD+ goals.

REDD+ is a United Nations program launched in 2008 to incentivize countries to conserve forests by offering results-based payments for actions to reduce or remove forest carbon emissions (UN-REDD, 2019). In 2012, with help from the German Cooperation agency (GIZ), MAE released their REDD+ Readiness in Ecuador document. This document outlines the state's efforts to pave the way for REDD+ implementation. *Socio Bosque* is mentioned, but is described as "neither a REDD+ mechanism nor is it part of the National REDD+ Programme, it is part of the Forest Governance Model so the Ministry of Environment must define how the REDD+ mechanism and PNREDD+ (*Plan Nacional* REDD+) will support the financial sustainability of this incentive programme for the

[8] The Bono de desarollo humano is a monthly payment to those in poverty or economic vulnerability and consists of a "monthly conditional cash transfer of USD 50.00 conceptualized to cover vulnerabilities related to the economic situation of the family nucleus" (https://www.inclusion.gob.ec/bono-de-desarrollo-humano1/).

conservation of Ecuador's natural ecosystems" (21). It is clear that as *Socio Bosque* demonstrated results, it moved from being a sovereign state-led initiative and was viewed as a key element of REDD+ in Ecuador moving forward, particularly how REDD+ could help support the long-term sustainability of the program. However, the 2012 document is still clear in stating that the program was not officially part of the REDD+ program.

In the years following, Ecuador became increasingly involved in global environmental governance frameworks like REDD+ by meeting the requirements of these frameworks. REDD+ requires participating countries to complete the following four documents in preparation for implementation of the overall strategy: 1) a national REDD+ strategy; 2) a national reference remission level or forest reference level; 3) a national forest monitoring system; and 4) a national safeguard system. In 2016, Ecuador developed and launched its national REDD+ strategy entitled *Bosques para el Buen vivir* (Forests for Good Living). This document provides the main state framework in which forest governance programs operate within the country. The document states that REDD+ has a "special relationship" with Objective 7 of the 2013 *Plan Nacional del Buen vivir* – "to guarantee the rights of nature and to promote territorial and global environmental sustainability" -, and with Objective 10 – "to boost the transformation of the 'productive matrix'" (16)[9]. The REDD+ national strategy is seen as a way to apply constitutional precepts and policy guidelines by creating concrete processes of economic and productive transition, such as "the integration of the forest sector as a productive alternative to diversify rural economies" (60). The strategy places emphasis on policies and actions that integrate and complement incentives that help to decrease deforestation and degradation, specifically giving priority to *Socio Bosque* as a key component of REDD+ in Ecuador (124). One high ranking MAE official interviewed stated that "there is a policy change, we need resources and we need REDD+ and we work in all conditions to access REDD+ funds…for international cooperation *Socio Bosque* is REDD+. They try to channel funds to *Socio Bosque*". This official's comments suggest that while the Ecuadorian government might maintain in rhetoric that *Socio Bosque* is a sovereign conservation program, it is becoming increasingly evident that in practice, specifically in the realm of international conservation funding agencies, *Socio Bosque* needs to be a key component of Ecuador's REDD+ and climate change mitigation and adaptation strategies. The

[9] Original Spanish: *Objetivo 7: Garantizar los derechos de la naturaleza y promover la sostenibilidad ambiental territorial y global; Objetivo 10: Objetivo 10. Impulsar la transformación de la matriz productiva*

acceptance, albeit reluctant on the part of the state, of *Socio Bosque* within the national REDD+ framework was a sharp turn for the government, but not one that cannot be understood when the surrounding context of financial sustainability is analyzed.

It is still unknown exactly how *Socio Bosque* will fit into the country's REDD+ Action Plan, but the long-term sustainability of the program is in jeopardy and aligning it with REDD+ is seen by MAE as a strategic maneuver to ensure financial sustainability (MAE, 2013). Financial sustainability of *Socio Bosque* has been a concern since the initial phases of the project with documents suggesting various financial sources, such as corporate social responsibility and biodiversity conservation donations, international multilateral and bilateral support, the international carbon market, and other national sources like hydroelectric companies (*Socio Bosque*, 2013). In 2019, the financial crisis of *Socio Bosque* was heightened when the state reduced its budget for MAE and SENAGUA – *Secretaría Nacional del Agua* (National Water Secretariat) by nearly 34%, with *Socio Bosque* being the most affected program with a 71% budget reduction (22.8 million to 6.62 million) (Alarcón, 2019). As a result, financial sources outside of the Ecuadorian state's budget have become increasingly important to the continued functioning of the program. In 2012, 100% of the *Socio Bosque* budget came from the state, but in 2015 19% of the budget came from sources external to the state. However, the majority of these funds came from Conservation International in the initial phases of the program, while international multilateral/bilateral support from KfW (Germany's state-owned development bank) and funding through technical support from IADB (Inter-American Development Bank) has materialized in recent years. In a 2013 document, MAE explained that the total cost to run the program was projected to be $98,919,960 million USD – $17,010,000 million funded by KfW and the remaining $81,909,960 million coming from Ecuadorian state resources (MAE, 2012). It is interesting to note that this same document states that part of the KfW funding is attached to "helping consolidate *Socio Bosque* and the REDD strategy in Ecuador" (28). While no official decision has been made on *Socio Bosque* as a REDD+ mechanism, many government officials that were interviewed stated that *Socio Bosque* could be used as a mechanism to distribute funds received as part of REDD+. Ecuador has received millions of dollars from international funding agencies associated with REDD+. The Green Climate Fund (GCF), established in 2010 as a financial mechanism to assist developing countries in combating climate change, has also committed 327.3 million USD of funds to Ecuador as part of a combined effort of 830.6 million USD.

Currently, 41.2 million of GCF funding is being spent to implement Ecuador's REDD+ Action Plan with four other institutions contributing 42.8 million (MAE – 31.8 million, MAGAP, 8.5 million, UNDP 1.1 million, UNDP and UNEP 680,000, FAO 820,000) for a total of 84 million. From this total, 28.5 million is set to go "financial and non-financial mechanisms for restoration, conservation and connectivity", of which *Socio Bosque* will receive 20 million (GCF 7.7 million and co-financing 12.3 million) (GCF, 2016). MAE is also looking to private companies to help finance *Socio Bosque*, as demonstrated by an agreement signed with Chevrolet which will provide approximately 230,000 USD per year for 5 years to conserve 10,000 hectares as part of a carbon neutral initiative for their Sail model car (MAE, 2019a).

It is clear that financial sustainability of *Socio Bosque* is, and will continue to be a central issue moving forward. Various community members interviewed during field research understood the precarious position in which they and the program find themselves. One *tayta* (elder) explained that he believes that in 20 years the program may end because it is not funded by the state but by international cooperation agencies and developed countries who provide 70% of the funding, while 30% is from the state. A lack of political will power could ultimately create the downfall of *Socio Bosque* if, in 20 years, a new government takes power and decides not to continue funding the project or even make it a priority in the international agenda for Ecuador. Communities that were interviewed recognize the need to make *Socio Bosque* an institutionalized public policy in order to maintain both financial and political sustainability. One *tayta* interviewed proposed that the state declares all *páramo*s, whether part of the program or not, *patrimonio comunitario* (community heritage) because "if it is left up to politics and politicians, there is no guarantee".[10] While the reasons may be many, it is clear that *Socio Bosque* is becoming increasingly linked to international environmental governance strategies, such as REDD+. While the exact implications of connecting *Socio Bosque* to larger international efforts and frameworks is unknown, the focus of complying to these frameworks may continue to restrict local land use and resource management practices in order to meet international goals and requirements. Furthermore, various scholars have expressed concerns over the ability of

[10] Original Spanish: "*No solamente para los que están el programa Socio Bosque, más bien para todos los páramos como dice la Constitución de la Republica. Queremos que sea declarado como patrimonio comunitario y otro como recarga hídrica, de esta manera está definido. Credo solo por política no tiene mayor garantía, en Chimborazo tenemos Asociación de Parameros de Chimborazo*." (*Tayta* interviewed in non-Socio Bosque community, 2019-08-13).

international frameworks and goals to provide meaningful inclusion and participation of Indigenous communities (Kebec, 2013; Long, 2013; Reuters, 2015; Borrows, 2017; Brugnach et al., 2017; Knockwood, 2017; Nicol, 2017; Nichols, 2017; Youngblood Henderson, 2017).

Chapter 3

Theoretical Framework

3.1 Introduction

This research seeks to provide insight into the apparent dichotomy between the utility and practicality of nature and natural resources that provide livelihoods to communities and the meaning that Indigenous communities ascribe to nature through complex, interconnected relationships between individuals, communities, nature and the divine. Furthermore, this research sheds light on questions of political, social, and ideological hegemony in environmental governance programs by discussing Indigenous agency and participation in payment for ecosystem services (PES) programs. In order to achieve these outcomes, this section seeks to outline the core assumptions of the theoretical perspectives underpinning PES programs, such as REDD+, and compare and contrast these assumptions with Indigenous ways of living, being and knowing that are informed by an intimate relationship with nature, specifically the *Kichwa* Indigenous and their relationship with *Pachamama*. Specific attention will be paid to how PES theories and programs understand the inclusion and participation of Indigenous communities in relation to environmental governance and resource use. The concept of hegemony will provide an anchor to guide the discussion of Indigenous agency and participation in PES programs. To frame and understand the empirical data of this research, this section will be divided into the following three theoretical debates:

1. Debate 1 – Environmental Governance: Laissez faire vs Regulation
   This section will explore the dichotomy between neoliberal, market-based environmental conservation in theory and the regulatory measures, if any, in place when PES programs are implemented.
2. Debate 2 – Assigning Value to Nature
   This section will focus on how value is assigned to nature within PES programs and compare and contrast the economic assignation of value to nature with how Indigenous environmental knowledge values nature, drawing on various authors to understand the specific relationship that the *Kichwa* have with *Pachamama*.
3. Debate 3 – Indigenous Agency or Hegemonic Ideology
   This final section will explore Indigenous agency within a largely global environmental governance program, PES. The concept of hegemony will be defined and discussed to help understand the ways in which Indigenous communities engage with and adapt to international climate change norms and goals in order to preserve livelihoods, land and place.

In the end, I will argue that PES programs in Indigenous communities do not operate void of a local social, political, economic, cultural and historical context. In the local contexts of the communities in this research, the dominant institution of the hacienda has left an indelible mark on the social norms and practices that frame interactions between the state and Indigenous communities. As a result, Indigenous communities interact with and participate in state-led environmental governance programs like *Socio Bosque* as a means of *sobrevivencia* (survival) that helps to sustain livelihoods and to maintain ties to land, place and space, as well as to continue traditional connections to the communal, the natural, and the divine aspects of nature.

3.2 Debate 1 – Free Market Environmentalism vs Regulatory Governance

The first debate central to PES programs is that of free market ideology vs regulation in the form of rules and norms in environmental governance. Historically and theoretically, PES programs draw from market-based, neoliberal perspectives on regulation and control, arguing that regulating behaviour to conserve the environment is too costly and the efficiency and elegance of market mechanisms will encourage cooperation and conservation through payments (Dryzek, 2013). Proponents of market-based mechanisms for environmental governance or "free market environmentalism" see regulation as a "command and control" that impedes the natural function of the market (Anderson and Leal, 2001, 2015; Dryzek, 2013). Two pillars are integral for free market environmentalism. First, private property rights "compel owners to account for the costs and benefits of their actions" and to know the potential of and demand for the environmental resources, goods and services of their property (Anderson and Leal, 2015: 3). In turn, private property facilitates markets "that create efficiency-enhancing gains from trade" through the right incentives for conservation in the form of market prices (Anderson and Leal, 2015: 3).

Free market environmentalism has dominated global environmental government discourse and policy. As Baden states, "there is wide agreement that FME [Free Market Environmentalism] is intellectually dominant; no responsible scholar still supports the old command-and-control resource management model of the Progressive Era" (Baden, 2012: 182). Therefore, a neoliberal, *laissez-faire* approach to environmental governance permeates the epistemic assumptions of PES programs. The FME approach sees conservation as a cost/benefit where the cost of conservation must be equal to or greater than other opportunities presented. Similarly, PES programs argue that people's

livelihoods create powerful forces and incentives for environmental degradation, and environmental conservation becomes a cost to those who depend on nature to sustain livelihoods (Dryzek, 2013; Goodin, 2005; Stavins and Whitehead, 2005; Barbier, 2011; Fairhead et al., 2012). As a result, the market-based rationale behind PES programs posits that individuals and communities must be compensated for the loss of income that is experienced through conservation of land and resources that were previously or potentially used to generate livelihoods.

To achieve financial compensation, PES programs create a "financial value for the carbon stored in forests by offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development" (UN-REDD, 2019). The underlying principle of PES programs is to pay local resource users to conserve areas of global ecological value (Wunder, 2005, 2009; Wunder and Wertz-Kanounnikoff, 2009; Lipper et al., 2009; UNEP, 2010; Farley et al.., 2011; Grima et al., 2013; Martin-Ortega et al., 2013; UNDP, 2017; Duchelle et al., 2018; Massarella et al., 2018). However, finding a price that adequately reflects the subjective nature of ecological services and institutionalizing market-based mechanisms can affect local, pre-existing resource governance and land use practices (Krause and Loft, 2013; Schroeder and Okereke, 2013; Chan et al., 2017; Sikor et al., 2017). As a result, the effects of PES programs are debated among scholars (Kumar and Muradian, 2009; Chan et al., 2017), with some seeing these programs as viable options to curb climate change (Mitchell and Maxwell 2010; Barbier, 2011; Schroeder and Okereke 2013; Bishop and Hill 2014), while others take more critical perspective of PES programs (Kosoy, 2009; Sunderlin and Atmadja, 2009; Skutsch and McCall, 2010, Corbera, 2012; Kebec, 2013, Chan et al., 2017).

While the success of PES programs in addressing climate change is debated, these programs are seen as an alternative to regulatory methods of environmental conservation. PES programs' neoliberal assumptions seem to point towards less regulation, but Dryzek (2012) argues that PES programs operate differently in practice where significant regulation occurs. Therefore, it is important to understand the level of regulatory control, if any, that exists in the implementation of PES programs in practice. This research will explore the role of rules and norms in regulating behaviour in PES programs and seeks to understand the balance between regulation and control of PES programs and

the *lassier-faire* approach of neoliberal, market-based environmental governance programs. The empirical evidence suggests that PES programs are highly regulated through rules and norms that frame Indigenous participation.

Finally, PES incentive programs directed at environmental conservation have been shown to marginalize local populations and change livelihoods, specifically those of Indigenous communities (Fairhead et al., 2012; Brockhaus et al., 2014; Kashwan, 2017; Sikor et al., 2017; Duchelle et al., 2018; Massarella et al., 2018). The idea of placing a price on nature in order to incentivize inclusion and participation of local populations seems to contradict the notion of self-determination, participation, and inclusion outlined in the Ecuadorian Constitution. According to Acosta, one can understand this apparent contradiction by understanding that the Ecuadorian nation-state was built on a logic imposed by capitalism, a logic of exclusivity that constricted local capacity for cultural, social, and productive development (Acosta, 2013b). Furthermore, the Ecuadorian state was founded on the colonial state that marginalized and excluded indigenous populations from social, economic, and political participation and, as a result, the process of indigenous struggle must be understood as "emancipatory struggles that seek to overcome the deep colonial, oligarchic and neoliberal remnants" (Acosta, 2013b: 11). Viewed from this perspective, the inclusion of Indigenous concepts into the 2008 Constitution and the participation of Indigenous political and intellectual leaders in the development of the Constitution represented a step forward in the struggle for recognition of Indigenous rights and *cosmovisiones* as valid livelihood alternatives. However, subsequent policies in the area of environmental governance and conservation have been rooted in a neoliberal approach of free market environmentalism that seeks to incentivize local populations to conserve local forests and grasslands and to participate in global climate change initiatives. This same neoliberal approach has historically marginalized and oppressed the equal and meaningful inclusion and participation of Indigenous peoples in the economic, social, and political circles of Ecuadorian society.

3.3 Debate 2 – Assigning Value: Materiality vs Spirituality

A second debate central to PES programs is the assignation of value placed on nature. This section seeks to outline the difference between Scientific Forest Governance (SFG) assignation of value to nature with the value which Indigenous communities place on nature. Recent empirical work on the

politics and economics of protecting nature through PES programs, such as cap-and-trade and REDD+, has highlighted the economic and political challenges of establishing an "ideal" price on ecological resources and services (Sunderlin et al., 2009; Lipper et al., 2009; Skutsch et al., 2010; UNEP, 2010; Farley et al.., 2011; Grima et al., 2013; Krause and Loft, 2013; Lang, 2013; Martin-Ortega et al., 2013; Schroeder and Okereke, 2013; Paterson et al., 2014; UN-REDD, 2015; Martin et al., 2015; Morley, 2017; Sikor et al., 2017; UNDP, 2017; Chan et al., 2017). From a neoliberal perspective, the economic challenge entails assigning a price that will change people's actions and decisions regarding resources (see Stavins and Whitehead, 2005). Politically, it entails the more difficult challenge of institutionalizing market-based mechanisms in a context of competing or pre-existing resource governance regimes, and here it has been argued that paying for nature is rooted in a model of neoliberal economics that effectively contradicts or undermines local and traditional models of resource access, governance, values, and allocation (McCauley 2006; Kosoy and Corbera 2010; Turnhout et al. 2013; Gomez-Baggethun & Ruiz-Perez 2011; Lewis, 2016; Morley, 2017; Sikor et al., 2017). Putting a price on ecological services raises questions about the ways in which we value resources, including the terms on which we assign prices for resources that are effectively priceless, such as burial grounds and other sacred places (Goodin, 2005; Papayannis and Mallarach, 2007; Mallarach, 2008; Boillat et al., 2013; Berkes, 2018; Verschuuren and Brown, 2018). Finally, there is an equity problem in the sense that some actors and individuals are better able to capture the benefits of local conservation practices (Goodin, 2005; Dryzek, 2013).

Economic Value of Nature

In order to understand how market-based environmental governance mechanisms, such as PES programs, place a value on nature, the epistemic underpinnings of these mechanisms need to be explained. PES programs are rooted in Scientific Forest Governance (SFG), the dominant perspective within Western environmental governance policies and programs (Scott, 1998; Dryzek and Schlosberg, 2005; Berkes, 2018). SFG views ecosystems from a purely utilitarian perspective where nature is seen as an economic resource or source of capital that can be monetized, and SFG reduces climate change to an economic problem, specifically one of incentives and externalities (Goodin, 2005; Kosoy and Corbera, 2010; Barbier, 2011), with some scholars referring to this type of commodification of ecosystems as the "neoliberalization of nature" (Igoe, 2007; Castree, 2008, 2008a; Bakker, 2009, 2010; Buscher et al., 2012; Roth and Dressler, 2012). This perspective

prioritizes individual responses and behavioural changes which together result in larger shifts in community behaviour to conserve ecosystems and to combat the negative effects of climate change. Economic incentives are the means used to motivate behaviour change and conservation of ecosystems.

Individual economic incentives as motivators become complicated in a local context of Indigenous communities that, according to González and Javier, obligate Indigenous to individual representation when they come from a local, participatory form of governance, which causes Indigenous peoples "to establish themselves in the egoism of individuality when they live in solidarity" (2013: 85). While different perspectives on the environment and natural resources do include other forms of understanding, the field of environmental governance and climate change adaptation and mitigation has been dominated by specific epistemic underpinnings rooted in SFG (Berkes, 2018).

Assigning value based on ecosystem services is epistemologically rooted in "high modernism" (Scott, 1998). According to Scott (1998), high modernism is a belief in the linear, scientific and technical progress associated with industrialization and modernization in the West that plays out in the day to day "administrative ordering of nature and society" with the goal of improving the human condition and organizing society into a legible, simplified polity (Scott, 1998). Scott demonstrates how this ordering is achieved through an analysis of the historical process of scientific forestry that reduces nature to its purely utilitarian aspect and replaces the term nature with natural resources. As Scott states, this ordering requires a "narrowing of vision…that brings into sharp focus certain limited aspects of an otherwise far more complex and unwieldly reality" (Scott, 1998: 11), and, as a result, reduces complex, local realities to something that is easily legible and measured. Furthermore, according to Berkes (2018), SFG employs a positivist-reductionist perspective that places an emphasis on a technocratic-bureaucratic knowledge and organization of ecosystems and ecosystem services.

The technification and expertization of knowledge within environmental governance produces a "centrality of expert knowledges (and discourses)" that shape environmental governance problems and solutions, relegating Indigenous populations to the margins of decision making (Peet et al., 2011: 10). Ultimately, the use of "technical and scientific concepts and vocabularies, most of which are poorly understood by non-REDD+ forest stakeholders, has become a powerful tool in legitimizing and envisioning the program" (Astuti and McGregor, 2015, 26). Similarly, Dryzek defines the SFG approach to environmental governance as administrative rationalism – "a problem-solving discourse which emphasizes the role of the expert rather than the citizen or producer/consumer in social problem solving" (Dryzek, 2013: 75). SFG thinking places emphasis on the technical, bureaucratic "expert", implements a "top-down" planning that prioritizes universal, centrally controlled goals and the means by which to achieve such goals which displaces forms of traditional knowledge (Scott, 1998; Dryzek, 2013; Peet, 2011; Berkes, 2018). In other words, the tools used to legitimize PES programs are exclusionary in their epistemic foundations and, as a result, continue to marginalize Indigenous communities to the periphery of true inclusion and participation within market based environmental governance programs like REDD+ and PES.

As a result of SFG being the dominant perspective of nature, one solution to the problem of climate change is found in identifying a market-value and compensation to landowners for the ecological services their forests provide (Barbier, 2011; Pagiola and Platais, 2007). More specifically, REDD+ and PES programs represent a utilitarian environmental governance approach that "simplifies nature [and represents] a paradigmatic example of market-based conservation, that is the management of nature according to monetary values, and utilitarian principles of supply and demand" (Corbera, 2012: 613). According to Dryzek (2013: 124), markets can be usefully defined as "systems in which goods, services and financial instruments are exchanged for each other". "Markets work smoothly," he argues, when "participants in transactions can be confident that they do in fact have a right to sell or buy the goods in question - in other words, they have property rights, be it to a car, a can of beans, a company, a bond or a piece of land" (124). However, many environmental goods and services do not conform to these general principles. Resources like air and water are difficult (if not impossible) to privatize because they cannot be easily divided and transferred. Instead of privatizing individual parcels of resources (as we would with individual parcels of land), market-based approaches therefore entail privatizing the right to use resources, often through the use of permits

or quotas. One popular example of this kind of policy is the use of "cap-and-trade" schemes (Paterson et al., 2014), in which governments set limits on the total amount of pollutants that companies or individuals are allowed to emit over a given period of time. Another is the use of "payments for ecological services," in which authorities place a monetary value on a broad range of ecological services (including the opportunity costs of sustaining these services) in exchange for conserving a forest or a watershed (Stavins and Whitehead, 2005).

In order to create a market, neoliberal, market-based environmental governance programs must assign an economic value to nature. However, as Ebeling and Yasue (2008) point out, this value is not always linked to ecosystem biodiversity:

> "...carbon markets value carbon not biodiversity and are designed to focus on the lowest cost options for generating emission reductions. They will thus favour areas with low land-use opportunity costs which may not coincide with areas of high conservation priorities. For example, global hot spots for biodiversity conservation have high land-use conversion rates (Myers et al, 2000) and are consequently likely to have high opportunity costs for conservation. (1921)"

Due to value being assigned to ecosystems of high carbon value, highly biodiverse and important areas like the *páramo* may be underprioritized within the global carbon market in contrast to high-carbon locations, such as the Amazon jungle, where presupposed carbon values drive mitigation and adaptation strategies. The Millennium Ecosystem Assessment (MEA) brought the concept of ecosystem services into the mainstream climate change policy agenda and defined the concept as "the benefits that people obtain from nature" (2005: 53). However, the idea of ecosystems providing a number of cultural, economic, environmental, and social benefits to humankind began well before the MEA in the 1970s (Gómez-Baggethun, 2010). In the 1990s, theories around ecosystem services began to put an economic value on the services provided by nature (Costanza et al., 1997). Since then, payment for ecosystem services as a viable compensation option for communities that depend on ecosystems for their livelihoods has become more prominent in both academic circles and environmental governance policies and programs.

While the definition of PES can vary, the Global Environmental Facility's definition is useful. GEF defines PES as "arrangements between buyers and sellers of environmental goods and services in

which those that pay are fully aware of what it is that they are paying for, and those that sell are proactively and deliberately engaging in resource use practices designed to secure the provision of the services" (GEF, 2014: 3). Wunder's criteria are generally accepted within the PES literature as a starting point for defining PES programs. For Wunder, the following 5 factors must be present in a PES program "(1) a voluntary transaction in which (2) a well-defined environmental service (or a land use likely to secure that service) (3) is 'bought' by a (minimum of one) buyer (4) from a (minimum of one) provider (5) if and only if the provider continuously secures the provision of the service (conditionality)" (Wunder, 2005: 3).

The Lived Experiences of Indigenous Environmental Knowledge

In contrast to the value that SFG places on nature, Indigenous perspectives, also known as Indigenous Environmental Knowledge (IEK), have a more encompassing view of nature. In many cases, IEK is often placed in juxtaposition to Western science and resource management. However, this dichotomy is based on differences between the two worldviews and tends to oversimplify them both. As a result, the two views can be made to appear at odds which masks important commonalities between SFG and IEK. While IEK and SFG do have differences, these differences do not mean that the two perspectives cannot be complementary. Various empirical studies demonstrate how IEK is not opposed to SFG (Alexander et al., 2011; Laborde et al., 2012; Klein et al., 2014).

One of the difficulties SFG encounters with IEK is its lack of a universal definition. Because of the diversity of IEK, it becomes difficult to develop an encompassing and definitive definition. Hobart warns that by attempting to define IEK we may "domesticate practice by recourse yet again to a hegemonic epistemology" (Hobart 1993: 14). While I recognize that it is important to be cautious about classifying IEK in a way that diminishes the diversity and meaning of different Indigenous knowledge systems, I will draw from a number of authors to provide an understanding of the concept. IEK can be defined as a system of knowledge that "has evolved through tradition as well as adaptive processes over time and has passed from generation to generation by cultural transmission" (Burkett 2013: 100). IEK is experientially learned rather than formally taught, it is contextual to specific spaces, places, and times, and it is dynamic and diverse (Burkett 2013: 101).

Berkes describes IEK as the ecological part of Indigenous knowledge which is a "land based, practical knowledge of species, and the beliefs regarding human interaction with the ecosystem" (Berkes, 2018: 8). Menzies, citing Jameson Brant, a Mohawk Indigenous, states that IEK is "cumulative and long-term, dynamic, historical, local, holistic, embedded, and moral and spiritual" and "a body of information about the interconnected elements of the natural environment which traditional indigenous people have been taught, from generation to generation" (Menzies, 2006: 2).

Some scholars (Battiste and Henderson, 2000) have identified traditional ecological knowledge and wisdom of Indigenous peoples as scientific in the sense that it is empirical, experimental, and systematic. However, although IEK may be classified as scientific by some, it differs with SFG on the epistemic level, that is, the ways in which knowledge is obtained and, as a result, the world around us understood. Specifically, the rules that govern knowledge processing within IEK tend to be different from those of SFG in terms of evidence, repeatability, and quantification (Berkes, 2018). The scientific method is based on the idea of testing and disseminating principles through processes of measurement, replication, quantification, and evidence (Berkes, 2018). Similarly, scientific forestry is based on the idea of replicating by disseminating a singular model of forest management like PES programs. IEK focuses on reading and interpreting a complex web of relationships between humans, animals, plants, natural forces, spirits, and landforms in a particular locality, as opposed to the discovery of universal "laws" that can be understood in their entirety (Berkes, 2018: 44). Finally, many systems of Indigenous knowledge are often embedded in deeply spiritual or religious beliefs and values that do not "make sense to science or fall outside of the realm of science" (Berkes, 2018: 11). This aspect of IEK is important for the study of the *Kichwa* Indigenous peoples and their relationship with *Pachamama*, a relationship that finds its meaning in practical and spiritual rituals.

The debate surrounding SFG and IEK has moved past a polar dichotomy and one where understanding how each perspective can positively influence the other is key. However, when dealing with scientific, mainly Western, perspectives on the environment and Indigenous *cosmovisiones* about nature, there is an inherent power struggle that can be understood in what Quijano calls the "colonial matrix of power" (2000). While Indigenous knowledge may be invited into the

environmental governance conversation, that conversation takes place in a historical context where certain knowledge has been marginalized and even erased, while other knowledge has been prioritized. As Agrawal notes, strategies for protecting and disseminating knowledge benefit different groups in different ways and the confusing labels of "Indigenous" and "Western" only obscure the fact that power struggles surround all knowledge production and dissemination (Agrawal, 1995). These power struggles have not only undermined Indigenous knowledge but also informed our understanding of Indigenous peoples. As Berkes (2018) notes, the study of IEK is hampered by preconceived notions about Indigenous communities and their views of and interactions with their surrounding ecosystems. The "ecologically noble savage" who lives in complete harmony with nature is a common misconception among scholars and environmental groups (Buege, 1996; Smithers, 2015).

Therefore, it is important not to romanticise Indigenous communities' relationship with nature but, at the same time, it is important to understand the land use and resource management practices of Indigenous communities, practices that see humans as part of and deeply connected to a larger ecosystem. It is also important not to create such a deep divide between IEK and SFG and that when we move away from rigid labels we "seek out bridges across the constructed chasm between the traditional and the scientific [and] initiate a productive dialogue", a dialogue that in the end will benefit the most vulnerable populations (Agrawal, 1995: 433; 2014: 4). We must not think of the "Indigenous" and the "Western" as diametrically opposed within the field of environmental governance and resource management. We need to begin to think how Indigenous knowledge is validated as legitimate forms of knowing and understanding the world and, as a result, how it can work in a harmonious relationship with Western scientific knowledge to seek solutions that improve the lives of the populations most vulnerable to climate change.

IEK and Ecuador

The inclusion of Indigenous environmental knowledge in the social, political, and economic context of Ecuador can be better understood with a brief discussion about the concept of *sumak kawsay*. The government of Rafael Correa incorporated the Indigenous concept of *sumak kawsay* into the national discussion about development and living well. The term *buen vivir* comes from the Indigenous concept of *sumak kawsay*. Catherine Walsh states that *sumak kawsay* "denotes, organizes,

and constructs a system of knowledge and living based on the communion of humans and nature and on the spatial-temporal harmonious totality of existence" (Walsh 2010: 18). While the origins of this term have been debated, it is nonetheless rooted in an Indigenous worldview that seeks a harmonious relationship with nature and community. For some, the Constitutional recognition of *sumak kawsay* in the form of its Spanish equivalent *buen vivir* provides a legal and socio-cultural alternative to the prevailing model of extractivist economic development (Acosta, 2009; Escobar, 2010; Gudynas and Acosta, 2011). For others, the inclusion of Indigenous concepts and peoples only reinforces ethnic stereotypes, racialized differences and deepens unequal "ecology of knowledges" (de Sousa Santos, 2007: Walsh, 2010; Choque Canqui, 2011; Mignolo, 2011; Patzi Paco, 2013; Estermann, 2015; Lewis, 2016).

In other words, as de Sousa Santos states, an ecology of knowledges grants equal opportunities to different kinds of knowledge in the epistemological debates to build a more democratic and just society and where a plurality of options is considered when debating social, political, and economic policies (de Sousa Santo, 2007: xx). How *sumak kawsay* has been institutionalized and implemented through policies of *buen vivir* is still debated in both scholarly and political debates. Some scholars argue that *buen vivir* as implemented by the State is a Western interpretation of *sumak kawsay* rooted in capitalist ideology (Mignolo, 2011; Estermann, 2012, 2015; Oviedo Freire, 2013, 2014, 2016), while other scholars view *buen vivir* as a practical alternative to development (Escobar, 2010; Cubillo-Guevara, et al. 2014; Le Quang & Vercoutére, 2013).

The struggle for the inclusion of Indigenous *cosmovisiones* as viable options for living and being does not take place in a vacuum, but within a "structure of power [that] was and even continues to be organized on and around the colonial axis" (Quijano, 2000: 568). For Quijano (1989), the colonial axis represented more than the colonization of land and peoples, but included the imposition of a supposedly superior form of knowing and understanding of the world that, as a universal paradigm, must be critiqued. As Quijano stated, "the instrumentalization of reason by the colonial power produced distorted knowledge paradigms" and spoiled the liberating promises of modernity and, as a result, "the much-needed alternative is the destruction of the coloniality of world power" (2007: 177). This destruction must begin with

> "epistemological decolonization to give way to a new intercultural communication, to an exchange of experiences and of significances. [There is] nothing less rational, finally, than the pretension that the specific worldview of

> a particular ethnicity is imposed as the universal rationality." (Quijano, 2007: 177)

While Quijano's calls for the destruction of the coloniality of world power may seem radical, it helps to recognize that the continued struggle of Indigenous peoples must first be understood as one that takes place on an epistemic level of understanding the world around us and that, historically, Indigenous *cosmovisiones* have been marginalized and, often times, violently erased from the larger political and social debates about society, life and, in particular, nature. The discursive struggle over the definition of Indigenous concepts in Ecuador and their practical implementation through policies and programs takes place within a context where Indigenous forms of knowing and living have been placed into a "subaltern" category that are "disqualified, and sometimes reappropriated in downgraded form as a mere resource" (Kleiche-Dray and Waast, 2016: 90). However, Indigenous, decolonial options "emerge from the ruins of languages, categories of thoughts and subjectivities…that had been consistently negated by the rhetoric of modernity and in the imperial implementation of the logic of coloniality" (Mignolo, 2007: 455). As Mignolo goes on to note, Indigenous ways of seeing the world "represent options confronting and delinking from…the colonial matrix of power" and, as a result, confront modernity and modern ways of seeing and dealing with global problems (Mignolo, 2011: xxvi). Therefore, the impacts of environmental governance programs on Indigenous communities and their *cosmovisiones* must be analyzed within an understanding, albeit basic, of the coloniality of power, the epistemic struggle described above, and the alternative knowledges offered within Indigenous communities.

Spirituality of Nature

One important aspect of how Indigenous communities value nature that is not found within the SFG perspective is the mythical and spiritual connection many communities have with nature. For many Indigenous peoples, nature is part of a larger cosmos that is connected to human beings through, among other things, a spiritual relationship "that goes beyond merely ordering productive activities geographically and also beyond the physical boundaries of a place" (Boillat et al., 2013 :668). This thinking parallels the idea of a place, in this case nature, as an event or relations rather than an abstract object (Howitt, 2002), defining ecosystems as "non-linear and multi-equilibrium systems" (Berkes et al., 1998). In many cases, scholars have identified a deep sense of spiritual and cultural connection to place that is expressed through language, sacred sites, and cultural landscapes that provide identity and meaning (Mallarach, 2008; Papayannnis and Mallarach, 2007; Boillat et al.,

2013; Berkes, 2018; Verschuuren and Brown, 2019). This meaning and identity goes largely unnoticed within PES programs and SFG due to the fact that spiritual and cultural connections to place and ecosystems are difficult to express in the monetary terms expressed in neoliberal, market-based environmental governance programs (Bryce et al., 2016; Cooper et al., 2016; Chan et al., 2016). Therefore, central to the debate on PES programs and their ability to engage with Indigenous *cosmovision*es is the clear negation of cultural and spiritual connections that Indigenous peoples have with nature and the inability of market-based conservation mechanisms to address these connections.

3.4 Debate 3 – From the Bottom-up or Top-down?: Participation through Indigenous Agency or Ideological Hegemony

This final section will explore Indigenous agency and participation in PES programs that seemingly oppress and marginalize Indigenous values and *cosmovisiones* with a global, hegemonic ideology of environmental governance rooted in SFG and market-based approaches. PES programs, more specifically REDD+, have been criticized as institutionalizing a continued marginalization of Indigenous communities' worldviews, needs, and ways of living in order to meet the global goals of tackling climate change (Brockhaus et al., 2014; Kashwan, 2017; Sikor et al., 2017; Duchelle et al., 2018; Massarella et al., 2018). Dehm describes Indigenous inclusion in REDD+ as "disciplinary inclusion" that uses "subtle forms of disciplinary power, policies of conditional inclusion and the enactment of responsible ecological subjectivities" (Dehm, 2016: 193). On a global scale, Indigenous inclusion and participation within international climate change and environmental governance frameworks seems limited.

Responding to criticisms of the negative effects of PES programs, in 2010 REDD+ adopted the Cancun Safeguards, or "measures to protect or to avoid risks (do no harm), while protecting benefits (do good)" (UN-REDD, 2019a). The third safeguard seeks the inclusion of Indigenous peoples by respecting "the knowledge and rights of indigenous peoples and members of local communities" through relevant international obligations, national circumstances and laws, such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The fourth safeguard demands the "full and effective participation of relevant stakeholders, in particular indigenous

peoples and local communities". However, exactly how these safeguards are met and reported in each country is left up to national and local governments to decide on where safeguards are applied and what reporting systems are put in place, leaving a dangerously ambiguous model in place (UNFCCC, 2011).

Through the Cancun Safeguards and the elaboration of REDD+'s guidelines for Engagement of Indigenous Peoples and other Forest Dependent Communities (UN-REDD, 2009), it is clear that REDD+ views Indigenous peoples as key partners, at least in rhetoric, and that without the full inclusion and participation of Indigenous peoples in climate change mitigation and adaptation strategies, achieving the global goals will be difficult. However, meaningful inclusion and participation of Indigenous peoples in environmental governance and climate change policies has been limited to representation in international, large-scale frameworks, such as the UNFCCC (Doolittle, 2010), and there is scepticism towards the ability of international frameworks (such as UNDRIP, the UNFCCC or the UN Platform for Indigenous and Local Community Climate Action) to recognize and protect Indigenous peoples who remain dependent upon national policies and state institutions (Kebec, 2013; Long, 2013; Reuters, 2015; Borrows, 2017; Brugnach et al., 2017; Knockwood, 2017; Nicol, 2017; Nichols, 2017; Youngblood Henderson, 2017). Furthermore, while representation is a fundamental step in achieving participation, the latter is far more complex and requires a substantive process of inclusion through various mechanisms surrounding the epistemic, institutional, and distributional decision-making processes of local resource use and environmental governance.

While REDD+ claims to be open to the participation of a diverse number of actors through various channels, in practice many participating countries lack clear mechanisms for inclusion and participation of non-state actors, specifically Indigenous peoples and rural communities who lack program title to land and forests (Williams, 2012; Lemaitre, 2011; Abate and Warner, 2013). Some scholars argue that PES programs can change local environmental practices and "open up new spaces for participation and negotiation over rights" (McElwee et al., 2014: 436; see also Shapiro-Garza, 2013). However, participation of Indigenous communities within PES programs is often limited due to complexities surrounding land tenure and property rights (Krause et al., 2013;

Osborne, 2014; Sikor et al., 2017; FAO, 2019), weak legal, financial, and institutional frameworks (Wunscher et al., 2011; Reed, 2011), a lack of previous social, human, and financial capital (Bremer et al., 2014a) and/or suspicion and fear of land appropriation within indigenous communities and umbrella organizations (Pagiola et al., 2005; Zbinden and Lee, 2005; Wunder, 2008; CONAIE, 2011; Reed, 2011). Paulson et al. (2012) note that global conditions exist that constrict participation, such as unequal power relations between Indigenous communities and the global north, limited resources to create inclusion, and challenges of legitimacy or "who represents whom at the global scale" (255). Aguilar-Støen et al. (2016) argue that participatory mechanisms of REDD+ have become spaces where certain legitimized groups participate while community-based participation is lacking (2016) As a result, participation of Indigenous peoples is limited to a checkbox item, lacking meaningful inclusion and participation and, often times, reduced to a one-time activity rather than a long-term engagement between Indigenous communities, civil society, and state institutions.

Although inclusion and participation of Indigenous communities in PES programs has become a mainstay of the international environmental governance and climate change discourse, studies of participation within PES programs have used primarily quantitative methods and are limited in the scope, focusing on willingness to participate (Zbinden and Lee, 2005) and the factors that influence participation (Pagiola et al., 2008; Krause et al., 2013). Only a few studies have employed qualitative approaches to understand local participation of Indigenous peoples in PES programs and the work that has been done focuses on the factors that drive local communities to participate in these programs (Kosoy et al., 2008, Corbera et al., 2007, Krause et al., 2013). Previous research suggests challenges regarding local participation in PES programs like *Socio Bosque* (IRG, 2010, Rojas et al., 2011; Krause et al., 2013a; Collen et al., 2016; Duchelle et al., 2018), but little research has been carried out analyzing participation from the ground up.

Ideological Hegemony or Indigenous Agency

With various research suggesting that meaningful participation and inclusion of Indigenous peoples in PES programs is limited and evidence suggesting that these programs marginalize Indigenous worldviews, why would indigenous communities participate in programs that limit their participation and actively erase their worldviews and change their relationships with land, place and space? In

seeking to answer this question, the concept of hegemony provides a framework within which Indigenous inclusion and participation in PES programs can be analyzed. This final section will explore hegemony as it relates to PES programs and Indigenous communities with the goal of providing a framework to understand Indigenous agency and state-led hegemony in environmental governance programs. It is important to note that this research does not presuppose that state elites have a "hegemonic project", but seeks to explore the hegemonic ideology of PES programs and the participation of Indigenous peoples in these programs through empirical analysis.

The concept of hegemony is largely attributed to the work of Italian Marxist Antonio Gramsci. While the concept of hegemony did not originate with Gramsci, his use of the term has influenced numerous political, social, cultural, and economic theorists. Since Gramsci's use of the term, social scientists have used the concept to analyze power, domination, and subordination in a variety of contexts. Gramsci's definition of hegemony is uncertain and scholars vary in their understanding and interpretation of the concept (Anderson, 2017). As a result of the ambiguity and scholarly debate around Gramsci's use of the term, this section is less concerned with providing a proper interpretation of Gramsci than with understanding and applying his concepts to the case of *Socio Bosque* in *Kichwa* communities of Chimborazo.

In his work to understand the stability of capitalism in Western Europe, some argue that Gramsci's use of hegemony focused on the intellectual and moral leadership that a ruling class exercises over subordinate or subaltern groups (Kurtz, 1996). For Gramsci, the exercise of hegemony "is characterised by the combination of force and consent, which balance each other reciprocally, without force predominating excessively over consent" (Forgacs, 2017: 261). However, limiting hegemony to its purely ideological form achieved through consent of the masses is problematic. This notion of hegemony is narrow in that it leads to an unhelpful separation of ideas and practice, or what people believe and how they live, separating material and social relationships from ideological "consciousness". In their critique of the "dominant thesis ideology", Abercrombie and Turner (1978) argue that the dominant ideology provides cohesion and reinforcement of the dominant class more than create compliance and passive acceptance within dominated or subordinate classes, since subordinate classes see any other ideological alternatives as impractical and

even impossible. Scott (1985) challenges the notion of hegemony as purely ideological by exploring the lack of consensus of the dominated through various forms of subtle, everyday forms of resistance. To understand this struggle, Scott's (1985) analysis of hegemony proves useful here when he states, "class rule is affected not so much by sanctions and coercion as by the consent and passive compliance of subordinate classes" (316). In order to achieve compliance, hegemonic ideology is not always spread from the top down, but "it is always the creation of prior struggle and compromises that are continually being tested and modified" (Scott, 1985: 336). As a result, the ideology of the ruling class requires that

> "particular interest be reformulated and presented as general interest…it must claim that the system of privilege, status, and property it defends operates in the interest not only of elites but also of subordinate groups whose compliance or support is being elicited… [making] implicit promises of benefits for subordinate groups that will serve as the stake which they too have in the prevailing social order" (Scott, 1985: 337).

These promises offered by elites must be fulfilled in order to gain compliance. However, Scott's view of hegemony tends to minimize material social relationships and subject positions that contribute to, or result from, hegemony in favour of identifying hegemony as ideological and associated with consciousness.

Therefore, others (Hall, 1998; Mitchell, 1990; Rosebury; 1994) understand hegemony as a concept that is material, social and cultural, "referring to the practices, relationships and meanings that establish or maintain domination on a broader basis than simple coercion while not precluding coercion" (Lyons, 2006; 19). By using this definition of hegemony, consent, coercion, and positive incentives are interlinked and subordinate classes are seen not as passive subjects conforming to the dominant ideology, but as active agents in their participation within hegemonic ideologies and practices. In this definition, exploring how social categories and relationships are constructed, maintained and reproduced is important to understand how hegemonic ideologies and practices becomes engrained within societies. As Rosebury (1994) argues, hegemony is not "a finished and monolithic ideological formation but…a problematic, contested, political process of domination and struggle" (358). As a result, hegemony cannot be reduced to simple consent and compliance, but it must be understood through "the ways in which the words, images, symbols, forms, organizations, institutions, and movements used by subordinate populations to talk about, understand, confront,

accommodate themselves to, or resist their domination are shaped by the process of domination itself. What hegemony constructs, then, is not a shared ideology but a common material and meaningful framework for living through, talking about, and acting upon social orders characterized by domination" (Rosebury, 1994: 360 – 361). Viewed in this way, hegemony and the processes associated with it do not separate the "dominant" elite and the "subaltern" groups, but the complex inter-relation between both parties, as well as the laws, programs and procedures that are implemented by the state into local realities are important factors that contribute to hegemony.

In the particular case of PES programs, hegemony will help to explain how and why Indigenous communities choose to participate in these programs. The privatization of land required by PES programs in order to create a market-based incentive program creates capitalist appropriation of communal lands within Indigenous communities. In the case of *Socio Bosque*, the use of Indigenous concepts as "euphemizations of economic power" to gain control over communal land and communities needs to be analyzed because

> "where direct physical coercion is not possible and where pure indirect domination of the capitalist market is not yet sufficient to ensure appropriation by itself…appropriation must take place through a socially recognized form of domination. Such domination is not simply imposed by force but most assume a form that gains social compliance" (Scott, 1985: 307).

Overall, the three debates outlined above form a framework used to present and to understand the institutional, distributional, and epistemic dimensions of *Socio Bosque*. Each theoretical debate corresponds to, but is not limited to, each empirical chapter. Theoretical debate #1 between free-market environmentalism and the rules and regulations of environmental governance will frame the first empirical chapter about the institutionalization of *Socio Bosque* and the rules and norms embedded in the program. Theoretical debate #2 which deals with the value assigned to nature by PES programs corresponds to the distributional chapter which will explore the value *Socio Bosque* and the Ecuadorian state place on nature, as well as the value and use that communities ascribe to the incentive payment they receive from the program. Finally, theoretical debate #3 frames the epistemic chapter by using the concept of hegemony to understand the agency displayed by Indigenous communities in participating in *Socio Bosque* by exploring the epistemic underpinnings of PES programs, specifically *Socio Bosque,* and comparing and contrasting these underpinnings with the *cosmovisiones* of the *Kichwa* of Chimborazo which are rooted in a complex relationship with

Pachamama. The concept of hegemony is not limited to the final chapter but helps to understand why Indigenous communities participate in a state-led program that, on the surface, actively erases Indigenous *cosmovisiones,* changes local land use and livelihood patterns, and creates rules and norms that frame community behaviour and interactions with nature and the state.

Chapter 4

Papas con Cuy: A Methodology

4.1 Site Selection: Why Ecuador?

Ecuador offers a unique case study for environmental governance programs in Indigenous communities since it is one of the most biodiverse countries in the world (Biodiversitygroup, 2017). However, Ecuador's biodiverse ecosystems are under threat from modern extractivist industries, such as oil and mining, causing the country to have one of the highest rates of deforestation in South America (FAO 2011; MAE 2011a). In spite of many state efforts, such as a national forestation and reforestation plan and *Socio Bosque*, the cutting down of native forests continues with approximately 12.8 millions hectares in 2018, which is only two million hectares less than the high deforestation experienced in the 1990s (*El Universo*, 2019a). Furthermore, Indigenous communities live in and use the resources of approximately 6.8 million hectares of forest, making research in these communities of utmost importance (UNEP, 2010). The province of Chimborazo was chosen because it is the province in Ecuador that has the highest number of Indigenous people and the highest poverty rate in the country with an estimated 80 percent living below the poverty line, with some counties reaching 95 percent poverty (FAO, 2017). Chimborazo was also chosen because I have worked in the province for nearly ten years, developing close relationships with various communities and leaders and making it easier to start and to complete field research. For this reason, Indigenous communities in the province of Chimborazo offer a unique location in which to study the effects of environmental governance programs on Indigenous communities.

The socio-economic make-up of the province is not the only reason Chimborazo has been chosen. While the province of Chimborazo does not have large amounts of forested areas, it does have the unique *páramo* (grassland/highland watershed) ecosystem of the Andes mountain range where Indigenous communities are dependent upon land and resources provided by this ecosystem for their livelihoods. *Páramo*s are complex ecosystems that are difficult to define but, in general, they refer to the vegetation zone above the tree limit but below the perpetual snow of the Andes Mountains (IUCN, 2014). These unique ecosystems host a wide variety of flora and fauna that have adapted to the difficult climate conditions. In Ecuador, the *páramo* covers approximately 5% of the land surface where a total of 1,524 species of plants have been found (Sklenár, et al., 2005; Beltrán, et al., 2009). On top of the biodiversity, the soils of the *páramo* serve an important function to store precipitation and act as a natural filter. Many communities living in the region, including larger urban cities, rely on rainwater collected in the vegetation of the *páramo* for drinking water and

irrigation. The communities surrounding the *páramo* are highly dependent on agricultural and livestock activities that, due to neoliberal reforms and the agricultural "green revolution", have intensified land use and forced communities to move up the mountainside, further invading the fragile *páramo* ecosystems, a problem that is not isolated to Chimborazo (Lefeber, 2003). The *páramo* ecosystem is an important ecological and geographical site for this study because it offers unique insights into the effects of PES programs on a fragile ecosystem and on communities that depend on these ecosystems and are the most vulnerable to the effects of climate change. Chimborazo also provides opportunities to learn about the complex relationship that Indigenous peoples, specifically the *Kichwa*, have through land use and resource management practices, as well as relationships rooted in cultural and spiritual connections to land and place.

Map of Ecuador with Chimborazo Province

The current political climate of Ecuador also offers a unique opportunity to study PES programs. Following the presidential election of 2017, the newly-elected government of Lenin Moreno has been rolling back many of the principal restrictions that were put in place by the Correa government on mining, forestry, and oil and gas, suggesting a decisive break from the *Revolución Ciudadana* to a more aggressive form of extractivism involving the expansion of petro-chemical industries, the destruction of ecologically sensitive areas, and the displacement of local and Indigenous communities. In 2017-18, the Ecuadorian government announced five new oil and gas concessions, and paid a number of diplomatic visits to Chile and Canada, where it was announced that mining was once again open for international investment. The increase of extractivism, combined with agricultural and livestock activities, places competing pressure on unique resources of ecosystems like the *páramo*, and in the case of Chimborazo this is evidenced in the various resource extraction projects, mainly mining, taking place alongside environmental conservation efforts. Therefore, Ecuador offers a unique case study to understand how PES programs are being implemented in the delicate social, cultural, political, environmental, and economic context of the country, a country whose political economy is firmly rooted in the extractive sector ((Latorre et al., 2015; Morley, 2017; Kingsbury et al., 2018). PES programs are meant to compensate the opportunity costs of conserving forests and grasslands, but the fact that Chimborazo experiences a number of competing land use and resource management practices suggests that the costs of conserving the *páramo* will be high. Therefore, the case of Chimborazo will contribute to understanding how competing land use and resource management practices affect the implementation of PES programs in Indigenous communities.

The *Socio Bosque* program in Ecuador offers an important case study to understand the effects of PES programs on Indigenous communities. Currently, 18,746 hectares of *páramo* form part of the *Socio Bosque* program and approximately 129 agreements have been signed, benefiting 19,862 people with an estimated annual payout of $395,000 USD (*Socio Bosque*, 2017). While these numbers represent a relatively small portion of the program – 1% of total hectares within Ecuador, 5% of total signed agreements, 12% of country-wide beneficiaries, and only 4% of total country-wide payouts – the social, cultural, spiritual, and economic importance of the *páramo* ecosystem to local communities is evident, making communities within the province of Chimborazo an ideal case study for understanding PES programs in Indigenous communities.

Finally, Ecuador has been chosen because while various studies have been carried out regarding the challenges and opportunities of environmental governance and PES programs at the international level (Ninan, 2009, Abate et al., 2013) and the Ecuadorian level, even in the *páramo* specifically, (Farley et al., 2011; Krause, 2013a, 2013b; Bendix et al., 2013, Loaiza et al, 2015, Latorre, 2015), studies based on *Kichwa* Indigenous communities of Chimborazo and PES programs are limited and focus mainly on motivations for participation (Bremer et al., 2014; Murtinho and Hayes, 2017), biodiversity outcomes (Bremer et al, 2019), and land use behaviour (Hayes et al., 2017). Furthermore, the case of Ecuador offers a rich source of material for analysis, particularly various state programs and institutions whose goals are the achievement of *sumak kawsay/buen vivir*. The country has touted itself as a model of alternative sustainable development that is inclusive and equitable, and Ecuador has received international recognition, with Correa presenting lectures at prestigious universities like Yale and Harvard (HarvardUniversity, 2014; YaleUniversity, 2014).

4.2 Research Methods

Community engaged, decolonial research

This research combines various qualitative and quantitative methods, such as semi-structured interviews, focus groups, archival research and key informant interviews. The section below will briefly discuss the multiple qualitative and quantitative research methods that were used in this research to provide a richer and more complete account of PES programs in Chimborazo, Ecuador. Qualitative methods have been chosen because the vast majority of studies on PES programs have been large-N, quantitative studies that overlook the normative, qualitative dimensions that are of interest to this research. By using qualitative methods, such as focus groups and interviews, various voices will be captured in this research, voices such as those of local, Indigenous communities that are historically marginalized from public policy discussions on environmental governance. While conducting field research, my engagement with Indigenous community leaders and *taytas* (elders), as well as local and national government representatives, was based on values and principles of love, compassion, kindness, and reciprocity. I, as a researcher, must be cognisant of the historical implications of research with Indigenous communities, and for some Indigenous peoples an

engagement with Western academia has meant a loss of culture and an appropriation of knowledge by colonial others who speak in a universal voice for many diverse Indigenous communities.

Drawing from extensive field research working with *Kichwa* Indigenous peoples in Ecuador, this research suggests ways in which scholars can engage with Indigenous communities as equal partners. This section and the subsequent empirical chapters explore the importance of Indigenous values, such as *randi randi* (reciprocity), relationality, complementarity, correspondence, and cyclicity and the normative practice of these concepts, in forming the base of a relationship of community engaged scholarship between researchers and communities. Community engaged scholarship can be seen as a decolonizing act that situates "the processes and relationships of engagement in new and transformed places and relationships" (Schultz, 2013: 51) and builds new spaces and networks of engagement based on principles of equality. Community-engaged research seeks to involve communities as active participants in the research process, to respect local customs and knowledge, and to provide a platform for Indigenous peoples to express their understanding of the world in which they live.

The Indigenization of research methods and pedagogy is nothing new (Tuhiwai-Smith, 2012; Walsh, 2017), but it would seem that practice and implementation of "decolonized" methodologies lags behind theoretical frameworks. Most universities are focusing on hiring Indigenous scholars, recruiting Indigenous students, incorporating Indigenous language courses into University curricula and including "indigenous worldviews" into course syllabi as means of achieving "Indigenization" (Samson, 2019), while decolonizing research methods remains more complicated. Decolonizing research is critical for countering hegemonic knowledge production, and community-engaged scholarship (CES) is one way which makes decolonizing knowledge possible. While defining exactly what constitutes engaged scholarship is complicated (Mullins, 2011), Shultz and Kajner (2013) explain CES is concerned with the "lifeworld in the community, not necessarily with the lifeworld of scholars" (2). In other words, the communal life and experiences are placed at the forefront of the research as scholars seek unique ways to engage with the everyday social, political, economic, and cultural struggles of local communities and individuals through a mutually beneficial and reciprocal relationship. However, there are moments where the life of the scholar can become intertwined

with the life of the community. For example, having worked with *Kichwa* communities in Chimborazo for over ten years, my life, my concerns and my work is intricately linked to that of the communities in a number of ways. Having said that, using CES as a methodological starting point focuses my attention as a scholar on ensuring that the voices and experiences of the community are adequately reflected in my own work.

In my experience, CES is relational and involves a sustained, complementary relationship between scholars and the communities with whom they engage. CES involves living, as much as possible, and meaningfully engaging with those who are the focal point of the research, while at the same time recognizing inherent power dynamics found within those relationships. As Henri Nouwen stated through his experience of living with poor and marginalized communities in Peru,

> "can we truly live with the poor [since]…my living with the poor hardly makes me poor…Living here not only makes me aware that I have never been poor, but also that my whole way of being, thinking, feeling, and acting is molded by a culture radically different from the one I live in now…At this moment, I feel that a certain realism is necessary. I am not poor as my neighbors are." (Nouwen, 1993: 115).

As Henri Nouwen rightly points out, no matter how much time one spends with a community or individual in a culture or situation that is radically different from his/her own, he/she will always have a different experience than that of the community. Often times, and as is the case in my research, this difference is shaped by a "coloniality of power" (Quijano, 2000) which structures relationships and power "on or around the colonial axis" (568). Various scholars have built on Quijano's coloniality of power to contest and unravel certain truth regimes that uphold and privilege colonial hegemonies and knowledge (Said, 1979; Tuhiwai-Smith, 2012; Absolon, 2011; de Sousa Santos, 2018; Mignolo and Walsh, 2018). Yet, the challenge remains to transform decolonial theory into decolonial praxis, and as Mignolo (2011) states, the "dispute of the control of authority and of knowledge will be the battlefield of the 21st century" (67). In this case study, the epistemic "dispute" between Indigenous communities and their relationship with *Pachamama* and the state's perspective about environmental governance and resource management collide in the implementation of *Socio Bosque* within *Kichwa* communities. Therefore, to understand the implications of this study, a decolonial lens is used to formulate and apply questions that reflect the interests of local communities who were involved in the framing and re-framing of research questions and methodologies. Allowing communities to speak their stories provided opportunities

for communities and individual community members to share their lived experiences. That is not to say that in this research the questions asked do not reflect the interest of myself and that of the "academic community"; however, having lived in and worked with the Chimborazo *Kichwa* for more than ten years, I have gained an understanding of the importance of nature, land, and place within these communities. As a result, my interactions with various communities*, tayta*s, and *mamitas* has shaped my understanding about and inquiry of state-led environmental governance programs like *Socio Bosque* and informed the questions and methodologies applied during field research. While the questions posed in this research reflect my own interests, they also reflect similar questions that individuals and communities posed to me during the research and my time in the communities; questions about the value of nature, our connection to land and place, and meaningful inclusion and participation of Indigenous communities in state-led programs.

Semi-structured Interviews and Focus Groups

In order to gain a greater understanding of local land and resource use, PES and the *Socio Bosque* program, indigenous *cosmovision*es, and *sumak kawsay/buen vivir,* interviews with key informants and focus groups with various community members were the main methodologies used during field research in the specific communities of Chimborazo. The five communities that took part in this study were selected based on a combination of familiarity and snowball sampling. Each community forms part of the *Socio Bosque* but offers unique perspectives for analyzing the program. Similarly, national, international, and local government representatives were interviewed through a snowball sampling. I interviewed key informants from national, regional, and local government agencies, community leaders and members, and representatives from international development agencies that have implemented environmental governance projects in the region. The purpose of interviews was to gain a greater understanding of how various actors within environmental governance programs see PES and other governance strategies helping to achieve *sumak kawsay/buen vivir*. Furthermore, these interviews provide valuable insight into how various actors in environmental governance strategies view the different challenges and opportunities of implementing PES programs in indigenous communities. The methodology of *randi randi*, explained in greater detail below, was particularly helpful in community focus groups and interviews because it indicates my willingness to participate in everyday communal life and, as a result, created a bond of trust and confidence that

opened up honest discussions about community life, the *Socio Bosque* program and community-state relationships.

Table 2: Data sources and methods

Interviews/Primary Data	Representatives from 4 International NGOs (IUCN, UNDP, GIZ, FAO)
	Representatives from 3 Local Organizations (Acción Ecológica, Pastoral Social de Riobamba, CONDESAN)
	Focus groups and individual interviews with participants in 5 Communities in Chimborazo that participated in Socio Bosque. Individual interviews were also carried out with community leaders and members in 12 different communities that were not part of the Socio Bosque program.
	4 Government Actors – MAE, SENPLADES
Supporting Documents/Secondary Data	SENPLADES – Plan Nacional de Desarrollo 2007 -2010, Plan Nacional para el *Buen vivir* 2009 – 2013, 2013 – 2017 and 2017 – 2021
	Local government development and territorial organization plans (*Planes de desarrollo y ordenamiento territorial* - Guamote, Riobamba) and Chimborazo Provincial Government 2011 and 2015 territorial organization and development plans
	World Bank Chimborazo Natural Resource Management Project
	MAGAP (Agriculture and Livestock Ministry) – Incentives for Reforestation Program

The five participant communities were chosen based on the following two main criteria: 1. communities had to be located in the province of Chimborazo, and 2. communities had to form part of the *Socio Bosque* program. With this in mind, using local contacts I was able to select five different communities. In order to protect the identity of participants, the communities will be referred to as Community 1, Community 2, Community 3, Community 4, and Community 5. While interviews and information were gathered from other communities, the majority of the research was carried out in these five main communities. Other communities were also consulted, but these five communities were the focal point of the field research. *Socio Bosque* has two types of contracts with their local partners, individual and collective. The focus of this research is on the effects of PES programs in Indigenous communities. Therefore, individual contracts were not taken into account during this research. While it would have been beneficial to interview individual participants in the program, due to time constraints and limited resources this was not possible, representing a

limitation on the research. Future research possibilities remain in understanding how PES programs affect individual landowners compared to collective landowners. Of the total 128 contracts signed with *Socio Bosque* in Chimborazo, 24 are signed by collective landowners. In other words, 104 individuals and 24 communities participate in the program. The total number of beneficiaries in Chimborazo in 2016 was 19,989, of which 564 were beneficiaries of individual contracts and 19,425 were beneficiaries of collective contracts. However, collective contracts represented 13,046 hectares and individual contracts only 4,349 hectares. These numbers will be analyzed in further detail in the empirical section of this dissertation. For now, it is important to understand that when discussing the impact of PES programs as poverty alleviation strategies, collective contracts represent a much higher number of beneficiaries.

Due to previous work in Chimborazo, some of the potential interviewees were identified before entering the field. However, access to key informants for interviews was a challenge, specifically government officials, and potential participants were contacted through snowball sampling strategies. Gaining access to MAE and *Socio Bosque* officials represented a specific challenge that involved time and resources. Many government officials were not willing to speak freely with me without first obtaining approval from their superiors which often included jumping a number of bureaucratic hoops as I navigated the approval process. Access to community leaders and members was much easier. Given my previous contacts, I was able to gain access to various communities that were willing to share their experiences with me. Willing interview participants were chosen on the basis of their experience with environmental governance and PES strategies. Key informant interviews and focus groups were an integral part of understanding the hacienda system. Furthermore, information gained from elderly community members forms an important part of the historical account and analysis of the hacienda system since these participants are able to provide a living account of the hacienda. Participants were invited to share information surrounding the hacienda system which provided insight into how individuals and communities experienced political, social, economic, and environmental change, as well as the effects that this system has had on Indigenous communities, particularly in regards to environmental governance. Individual semi-structured interviews were carried out over the period of January 2018 – April 2018.

Key Documents Analysis

In order to provide a comprehensive understanding of how the institutionalization of certain concepts and ideas within the environmental governance framework in Ecuador affects *Kichwa* communities, analysis of various government documents was combined with interviews and focus groups carried out with government officials and local participants in the five participating communities. Documents from government agencies and political representatives, such as the now defunct *Secretaria del Buen vivir* (Secretariat of *Buen vivir*), SENPLADES (*Secretaría Nacional de Planificación y Desarrollo*), and the Ministry of Environment were analyzed. Below is a list of documents that will form part of the analysis of government discourse and practice that guides environmental governance in Ecuador.

Table 3: Key Document Analysis

Overview of Documents Analyzed	
Institution	**Document**
Government of Ecuador	2008 Constitution
SENPLADES (National Secretariat of Planning and Development)	National Development Plan 2007-2010
	National Plan for *Buen vivir* 2009-2013
	National Plan for *Buen vivir* 2013-2017
	National Development Plan: *Toda una vida* 2017-2021
MAE (Ministry of Environment)	REDD+ Action Plan – Forests *for Buen vivir*
	National Climate Change Strategy
	National Forestation and Reforestation Plan (2014-2017)
MAGAP (Ministry of Agriculture, Livestock, Aquaculture, and Fishing)	Reforestation Incentive Program for the Purpose of Commercialization
Socio Bosque Program	Operating Manual (Ministerial Agreement #115)

The documents above provided insight into various levels of government and their views on forest management and environmental governance. Furthermore, these documents outline specific environmental governance policies, changes in priorities over time, and evolving relationships between government actors and civil society in the implementation and policy or program outcomes.

Storytelling

The theoretical framework is combined with stories and narratives from Indigenous communities obtained during my time in the field and previous interactions with *Kichwa* communities. The use of stories and narratives is an essential part of understanding how Indigenous peoples perceive and interact with their surrounding ecosystems and gives life to the theoretical framework by providing the stories that are at the heart of the *Kichwa* relationship with *Pachamama*. These stories are not just a description of reality, but shape how the *Kichwa* perceive reality and give insight into "the life-sustaining relationships of humans with other humans, other organisms and the physical environment" (Stibbe, 2015: 9). As Tuhiwai-Smith (2012) states, stories "contribute to a collective story in which every indigenous person has a place" where "the story and the story teller both serve to connect the past with the future, one generation with the other, the land with the people and the people with the story" (Tuhiwai-Smith, 144). Storytelling becomes essential for Indigenous communities of this study to retain control over their own narrative. In relation to this particular study, these stories and narratives provide a window into why Indigenous communities choose to participate in *Socio Bosque,* a program that seemingly runs contradictory to their *cosmovisiones.*

The reason I have included stories as an integral part of both my methodology and theoretical framework is that I found myself intrigued by the stories and what they told about Indigenous *cosmovisiones,* values, and agency, guided by their understanding of the world in which they live. The complex stories and narratives of this study contain multiple meanings, emotions, and references to historical and contemporary socio-economic processes. These stories are not a "static, 'ancestral' worldview, but an articulated interpretation with concrete historical perspective" and provide an intimate look into the world of Indigenous communities, both present and past (Tuaza, 2017a: 12). As Tuaza (2017) goes on to articulate,

> "The past for the Andean Indigenous is not only an existential experience that occurred before, but the past is considered *ñawpa*, that is, the one that comes forward, the one that precedes life, the vital breath accumulated by several generations that illuminates and makes the continuity of the story possible…The Andean world, unlike the West, has different views of reality, different ways of educating that can enrich the primary, secondary and higher education systems. It remains as a challenge to propose new research agendas that are committed to recovering narratives and finding in them other possible worlds that allow us to live deep interculturality and celebrate it (233 and 234)."
>
> *"El pasado para los indígenas andinos no solo resulta una experiencia existencial que ocurrió antes, sino que el antes es considerado como ñawpa, es decir, el que se adelanta, el que precede*

> *a la vida, el aliento vital acumulado por varias generaciones que ilumina y hace posible la continuidad de la historia… El mundo Andino, a diferencia de Occidente, posee miradas distintas de la realidad, maneras de educar diversas que pueden enriquecer los sistemas de educación primaria, secundaria y superior. Queda como reto plantear nuevas agendas de investigación que apuesten por recuperar narrativas y encontrar en ellas otros mundos posibles que permitan vivir la interculturalidad profunda, y celebrarla."*

My hope is that the stories contained in this study, when combined with the theoretical framework outlined above, help to contribute to recover Indigenous imaginaries and narratives and to celebrate the deeply rich perspectives and reality of Indigenous *cosmovisiones* and ways of living.

Engaging in State Bureaucracy

A final way in which research was carried out was a form of participant observation to which I refer as engaging in state bureaucracy. On numerous occasions, I had to deal with Ecuadorian state institutions as I navigated complex bureaucratic systems to seek interviews with government officials and to obtain approval from the Ministry of Environment (MAE) to carry out my research. Engaging in this way allowed me to understand the difficulty faced by many communities that attempt to meet the extensive list of requirements to be able to be considered for the *Socio Bosque* program. For example, in order to conduct my research, I needed to fill out a long and detailed document that gave MAE specific information about my research. Once my research was approved by MAE, in order for me to gain access to data and information on the *Socio Bosque* participants, I needed to pay a $20 USD fee. So, off to the bank I went to deposit the money in an account provided to me by a MAE representative. Lo and behold, upon arriving at the bank I was told that the bank account number was not correct and I could not make the deposit. I trekked back to MAE and was given the correct number to make the deposit. Numerous taxis and countless hours later, I had made the deposit and returned to MAE with the deposit slip to verify the payment. A week later I was able to meet with the *Socio Bosque* representatives who were able to hand over the data I required.

The entire process, from approval of my research to receiving the documents, took nearly one month to complete. I had both the financial resource and time to fulfill the various requests and trips that MAE had me make to approve my research. I can only imagine the difficulty faced by

many community members as they make the long trip to the central MAE offices in Riobamba only to be told they lack a number of documents and must run from government institution to government institution in order to gather the necessary requirements to enter the program or provide sustained monitoring and evaluation in order to stay in the program. Even if communities are able to gather the required information and documents, MAE has established a recruitment and selection process that will ultimately determine a community's participation in the program.

Personal Reflections of a Canadian Tayta

As a researcher, I struggle with writing myself into a story which does, and clearly should, focus on the voices of the *Kichwa* Indigenous peoples and their struggle. However, as I have moved along the process of research and writing, I have learned that my feelings, failings, and understanding have become intricately intertwined with the story this research tells. It is impossible for me to separate myself from this research and, as Stanley and Wise state, my "consciousness is always the medium through which the research occurs; there is no method or technique of doing research other than through the medium of the researcher" (Stanley and Wise, 1983: 157). For me, my time with the *Kichwa* is a productive and liberating experience that causes me to bear in mind their struggles and to undertake research that is "politically engaged, materially grounded, and institutionally sensitive" (Sultana, 2007: 376). Early on in my time with the *Kichwa,* it became apparent that any fieldwork conducted in their communities must be attentive to "histories of colonialism, development, globalization and local realities, to avoid exploitative research or perpetuation of relations of domination and control" (Sultana, 2007: 375). In this process, it was important to pay attention to my own positionality, to reflect on my position, and to understand "the production of knowledge and power relations that are inherent in the research process" (Sultana, 2007: 382).

While I feel it is important to write about my own experience and journey during this research process, I want to be conscious of the fact that this could easily turn into a naval gazing exercise based on self-centredness. As Puritan theologian Thomas Brooks states, "If it be not strong upon thy heart to practice what thou readest, to what end dost thou read? If thy light and knowledge be not turned into practice, the more knowing a man thou are, the more miserable a man thou wilt be" (Brooks, 1869: 13). Obtaining knowledge simply for knowledge's sake is useless since knowledge

must lead to change in practice and, more specifically, change in individual behaviour. While my research has certainly changed me as an individual and a scholar, my hope is that this research informs PES practices and provides a voice for Indigenous communities, even if that voice is interpreted through my own Western lens. Conducting field research has become a deeply personal experience for me. It has changed me in ways that I never thought possible. My aim in expounding my experience is to relay the profound effects my time with the people in Chimborazo had on me both from an academic and personal perspective, as well as contribute to the rich literature on research methodologies, particularly community engaged, decolonial research in Indigenous communities. As England states, "fieldwork is intensely personal, in that the positionality and biography of the researcher play a central role in the research process, in the field as well as in the final text" (England, 1994: 251). England's statement rings true with my experience and while my own bias and positionality cannot be written out of this research, my hope is that the voices of the *mamitas* and *taytas* of the communities involved in my research come through in my writing.

It is important that academic researchers continually break down the researcher/subject dichotomy that places a barrier between true knowledge exchange, learning and relationships beyond academia. While I understand that there will always be power relations and inequality present within the researcher/participant relationship, my experience has taught me that, in the Chimborazo context, when a researcher is willing to share with the community in their daily lives through mutual respect and understanding, doors can be opened and genuine relationships can be built. While achieving genuine relationships and honesty has taken time, it has been a fruitful experience that continues to help me to grow both academically, but more importantly, personally. Therefore, I would be doing both my research and my readers an injustice if I did not include personal reflections of my time in the field.

Ecuador has been chosen not only because of the important social, environmental, economic, and cultural aspects mentioned above, but also because I spent more than 8 years living in the country. I worked, and continue to work, in the province of Chimborazo in various capacities since 2009. My first foray into the *Kichwa* communities scattered throughout the highlands of Chimborazo, Ecuador occurred in 2005 when I was an exchange student. I decided to board the infamous *Nariz del Diablo*

(Devil's Nose) train ride that weaves through the mountains from Riobamba to Alausí. As the train made its way through some of the poorest communities found in the Guamote county, I was struck by the interactions between the *Kichwa* children that would run alongside the train as it pulled into or out of the small, community train stations and the foreign tourists, some of whom threw *caramelitos* (candy) to the children below. My twenty-something year-old self would have never envisioned that throughout the next 15 years I would develop deep connections to the people and communities of Chimborazo that grew into an ongoing relationship and resulted in the research contained in this dissertation; research that explores complex issues surrounding environmental governance and conservation, Indigenous *cosmovisiones* and livelihoods, and the politics of inclusion and participation in state-led climate change initiatives. The relationships built during the early years of my time in Chimborazo have led to sustained and meaningful relationships with various communities and individuals within these communities. I will always credit the *Kichwa* of Chimborazo as a main influence on my understanding of the impacts of global development and the social, cultural, political, and economic struggles of marginalized Indigenous communities

The specific research contained in this dissertation grew from my experiences within *Kichwa* communities of Chimborazo beginning in 2009 while doing various baseline studies for the Pan-American Health Organization in a number of *Kichwa* communities in the highlands. The frequent trips to Chimborazo have continued throughout the years, and I have returned to these communities only to see increased inequalities and marginalization of the *Kichwa* within economic and political life in Ecuador, combined with changing rural livelihoods and increased environmental pressures that continue to push the *páramo* ecosystem to its breaking point. In the 15 years since my first visit to highland communities in Chimborazo, agricultural activity has slowly moved up the unique and fragile ecosystem of the highland *páramo*s. Today, this activity can be seen above 4000m above sea level, more than 500m higher than when I first visited in 2009. In subsequent visits, I have also noticed increased resource extraction, specifically mining, carried out by national and trans-national corporations in a number of communities and surrounding *páramo*s. Initially, to me both of these activities had negative impacts on the *páramo* ecosystem that provides fresh water sources to surrounding communities and cities. So, in my mind, the solution was simple; preserve the *páramo* and keep the diverse rich ecosystem intact or suffer the irrevocable consequences. However, for *Kichwa* communities, the problems and the subsequent solutions are much more complex. The

relationship that the *Kichwa* have with the *páramo* is not simply an environmental relationship, but a complex interconnectivity of social, cultural, spiritual, and economic elements that complete preservation and conservation of the *páramo* would imbalance. However, if the *páramo* is not conserved in some way, there may be no *páramo* left. I was left to wonder what a possible solution looks like.

Papas con Cuy – Food, Family, and Community

While working for the Pan-American Health Organization in 2009, I met Luis Tuaza, a *Kichwa* scholar from Chimborazo who has years of invaluable experience living and working in Chimborazo. He has conducted academic research on the hacienda system, indigenous communities and political organization, indigenous education, and his most recent work on indigenous imaginaries. Over the following months and years, Luis and I would develop a friendship that inexplicably breaks cultural, racial, and even religious barriers, with Luis coming from a strict Roman Catholic background[11] and I from a rigid Protestant upbringing. We have spent many hours sharing our time together in various capacities and debating everything from theology to development theory. Luis is a gentle spirit whose smile lights up a room whenever he enters. He is respected in both Ecuadorian academic circles and *Kichwa* communities. He has an uncanny ability to move between both circles as a researcher/academic and, at the same time, an indigenous man who is part of the everyday struggles felt in the rural environment. He is dedicated to restoring dignity to Indigenous communities through his research and also his vocation as an Anglican Priest. Needless to say, he sacrifices much of his time and effort for his community and the *Kichwa* people of Chimborazo.

It has taken nearly fifteen years of working in the province of Chimborazo in various capacities and making countless visits to *Kichwa* communities for me to finally begin to feel accepted. This acceptance has much to do with Luis and his support, as well as the support of other local leaders and community members. During my field research for this thesis, Luis introduced me to community members and leaders using a term he had not normally used, *Tayta*. *Tayta* is Father in

[11] In early 2006, Luis left the Roman Catholic church. He joined the Anglican church in 2008 and has since served as a priest in the Anglican church.

Kichwa and when used in the communities, it is a sign of mutual respect and care. I was no longer Mateo (Matt), but *Tayta* Mateo. This type of relationship was not formed by months of field research, but through years of meaningful engagement in the lives of individuals and local communities.

On one particular occasion during the field research for this dissertation, Luis and I drove through the countryside headed towards the Pangor Region of Chimborazo. This was a community where Luis had spent a considerable amount of time in the early days of his Roman Catholic Priesthood. The scenery slowly began to change as we passed the marshy Lake Colta, veered off the main highway and began to wind our way up the western cordillera of the Andes. The breathtaking views, from the Church of Balbanera built in 1534 to the majestic *Tayta* Chimborazo Volcano in the distance, surrounded us. The land was a patchwork of rich, cultivated fields of various vegetables and legumes. Cultivated land in the rich, low lying plains quickly gave way to scattered crops of corn, quinoa, potatoes, and *habas* (fava beans), which slowly morphed into untouched vegetation and grassland of the *páramo*. During the entire drive, Luis and I discussed the impact of religion, the failure of development projects, and the future of the communities of the Pangor Basin.

Many of the communities in the area we were going to visit formed part of what was once known as the *Monjas Corral* hacienda. This hacienda passed through the hands of a number of private owners from the late 1700s until 1880, at which time the Diocese of Riobamba acquired *Monjas Corral* for 14,000 pesos. The sale included livestock, crops, and 18 indigenous labourers, who were considered property of the hacienda (Lyons, 2006: 55). Hacienda life continued in Pangor until 1962 as the Roman Catholic Church rented the land to a number of wealthy political elite members, and landholders. It was not until January 1, 1962, when Bishop Leonidas Proaño, known as the "Bishop of the Indians" for his work with local, Indigenous populations, terminated the final renter's contract, thus ending the "classic" hacienda period. The hacienda then entered into a transition phase where management of *Monjas Corral* was conducted through administrators appointed by the Bishop.

Discussing these issues with Luis, I could see his heart for these people, as I often did during my time with him in Chimborazo. He was not simply an academic interested in researching the political or social conditions present in these communities. Neither was he solely an Anglican Priest interested in the spiritual growth of the communities. He was much more. He was a *Kichwa*-speaking Indigenous person who had lived the daily struggle that many of these communities confront, a struggle of racism, exclusion, and oppression that is still present in Chimborazo today and is rooted in the hacienda system or the "colonial matrix of power" (Quijano, 2000). I will be forever grateful for the time I spent with Luis, and his insight into indigenous community life has been invaluable. In academic research terms, Luis may be referred to as a "gatekeeper" (Bryman et al., 2012: 17; Halperin and Heath, 2017: 296). However, I find the term insufficient in explaining what Luis has meant, not only to my research but also to my personal and spiritual growth. I am indebted to him and prefer to use the term *wawki* or *hermano* because he is in every sense of the word my brother.

As we made our way up the final climb to the community, I could see a small crowd of people gathered outside an adobe hut with smoke swirling from a fire that was lit inside. I knew what was waiting…papas con *cuy* (potatoes with guinea pig). *Cuy* is a typical dish served in these communities. It is an important source of protein, but in many instances, it is served to the invited guests. It is a special honour to receive *cuy* when visiting these communities, particularly the head. In this particular community, the *cuy* was exceptional, as Luis and I both commented on the taste. Maybe it was the altitude, the open fire cooking method, or the freshness that contributed to the delicious meal. I had grown accustomed to being served this dish as a staple in many of the community visits during my field research and during my work in Chimborazo since 2009. However, it was not until my recent field research that I realized the importance of sharing such a meal with community members. As Esteva notes, "customs and rituals surrounding the growing, preparation and serving of food are at the heart of community and communion [that] 'is a profoundly social and ecological event that connects us in the most intimate and primary way to others, to our land, water, and soil, to the future, to other species…Eating provides our most intimate association with the other'" (Blair, 1996 quoted in Esteva and Prakash, 1998). In *Kichwa* communities, food is a time for sharing and participating in community life. It allows everyone to contribute to the meal. Each community

member brings something to contribute, be it Coca-cola, potatoes, vegetables, or cooking utensils. Communities also see the sharing of food as part of *randi randi* or reciprocity.

Reciprocity dates back to Incan society and some Andeanist scholars claim that these gifts kept relationships between the conquering Incas and local Indigenous people from being exploitative (Murra: 1980, 2017; Wachtel 1977: 83). Similarly, reciprocity was used by wealthy landowners to legitimate the exploitation of peasants in the contemporary hacienda system (Lyons, 2006). Landowners would provide alcohol and resources for indigenous community fiestas, while at the same time maintaining an oppressive and abusive relationship towards their workers. Literally translated *randi randi* means giving and giving or mutual exchange, but within indigenous communities, it means much more than simply giving gifts. As Ferraro states, reciprocity is considered the nucleus of Andean social and economic organization. Reciprocity is the mechanism that regulates the flow of labour, goods, and services in the institutions of production, redistribution, and consumption (Ferraro, 2004: 40). The word expresses a sense of offering knowledge, help, and experience to the community. Therefore, *randi randi* is a giving and taking within communal life that involves much more than food. It is an opportunity for community members to contribute to communal life and progress. This type of reciprocity has become apparent to me with the more time I spend in Indigenous communities in Chimborazo.

In many communities I have visited in the past and also the communities that participated in this research, food was always served. Most times, as a guest I was served a large plate of *cuy*. In the most special of cases, I was served the head of the *cuy* which is considered an honour. While I have worked in many different capacities in these communities, I have seen that this is their way of giving back. While they may be unable to make financial contributions or pay back development projects or assistance, Indigenous communities in Chimborazo will always say thank you through food. This has become apparent to the various participants of development projects that I have accompanied into these communities. Often times, unbeknownst to the development worker, rejecting the food can be disrespectful to the community. My understanding of *Kichwa* reciprocity was greatly changed by people like Luis who helped me to avoid cultural mishaps and offenses that, if left to my own devices, I would have no doubt committed.

As I began to understand this complex relationship of reciprocity, I realized that I could also participate in this unique experience by contributing to the feast. As a scholar carrying out research, I was allowed to experience a window to community life and knowledge, even if it was limited. The least I could do to show my gratitude was to contribute to the food that was always part of focus groups and interviews. In each community I entered, I would bring whole chickens, ready to be cooked and served. This was my way of thanking the communities for their time and becoming part of the communal experience. Being accepted and included within a *Kichwa* Indigenous community is no small feat. These communities are generally wary of foreigners and while they may allow some people to enter their community, the inner workings of the social, political, economic, and spiritual aspects of the community are not openly shared. I will be forever grateful to the *mamitas* and *taytas* of the various communities I visited during my time in the field. Without their willingness to share their experiences with me, this research would be lacking key information.

However, I also understand Luis' positionality as an academic and Anglican priest will garner certain responses from the community. On numerous occasions, Luis has expressed to me how his own life experiences, such as the opportunity to study and gain a PhD, has placed him in a certain position within the academy as a *Kichwa* scholar, but also within the communities where he has been referred to as a *mishu*, or mestizo/elite, simply because he wears glasses and has obtained an education beyond primary school. Luis' positionality combined with my own positionality has undoubtedly affected the communities and their responses. However, the communities and individuals who participated in this research and their responses and collective information reflects, to a certain degree, their feelings about and interactions with the state-led program of *Socio Bosque*. Where at all possible, I am cognisant of positionality of all those involved in this research, and I have taken necessary steps, such as engaging in communal activities of reciprocity and contribution, in order to mitigate, as much as possible, unequal power dynamics inherent in our positionality.

Qualitative Research – Colonial Methods in a Decolonial Context

As Linda Tuhiwai Smith states, research, from the vantage point of the colonized, is linked to imperialism and colonialism (Tuhiwai-Smith, 2012). Historically, research for indigenous communities has meant a devaluing of local knowledge and customs and, at the same time, a pillaging of land, resources, and knowledge in the name of academic pursuit. Therefore, in order to discuss research methodology and indigenous peoples, one must understand the complex interconnectivity between knowledge pursuit and colonial practices. As Sultana states, "conducting international fieldwork involves being attentive to histories of colonialism, development, globalization and local realities, to avoid exploitative research or perpetuation of relations of domination and control" (Sultana, 2007: 375).

In my own research and given the positionality of Luis as an Anglican priest, I recognize that some might argue that he, and as a result, I, are extensions of the exploitative colonial project, or could be interpreted as such by the local communities. However, in my experience the deep connection and respect that Luis has within the communities, as well as for the communities, indicates that he is able to maintain a healthy balance between spiritual life as a Priest and academic research. He is part of the emancipatory struggle of the communities in which he works and lives as both a Priest and a researcher. I recognize the complexities surrounding Luis' positionality and, as an extension, my own positionality but working with Luis and various connections I have developed throughout the years of working with local communities has given me access to people and communities and their daily lives; an access that most foreigners would never have the privilege to experience. As a result, and even with the complications of positionality taken into account, the research data gathered is demonstrative of ways in which non-indigenous scholars like myself can engage with indigenous communities in a relationship that seeks to build upon values and principles of love, respect, and reciprocity. A deeper discussion about colonial practices of knowledge appropriation and knowledge devaluation will be elaborated when I enter into a deeper analysis of the epistemic effects of PES programs

Limitations

In order to be transparent about what I can and cannot say about the empirical evidence of this research, specific methodological limitations and questions of validity of the research and methods

used must be addressed. One of the major limitations of this research is the scale of the research. By focusing on only 5 *Kichwa* communities from the province of Chimborazo, this research does not speak to the other regions, Indigenous peoples, or individuals who also participate in *Socio Bosque*. In spite of this limitation, I can draw inferences about larger community use of *Socio Bosque* funds, relationships between communities and state-led PES programs, and the relationship some Indigenous communities have with land, place and their surrounding ecosystems. Furthermore, this research was not intended to be a comparative study of provinces or communities beyond Chimborazo, and my familiarity of the case and communities that formed part of this research allowed me to gather rich empirical data that would be absent from a larger, more comparative study.

A second limitation is the focus of the research and methods on community focus groups and key informant interviews, opting not to use household surveys that most of the research on *Socio Bosque* in Chimborazo has used (Perafán and Pabón, 2019; Arriagada et al. 2018; Hayes et al., 2017; Murtinho and Hayes, 2017; Hayes et al., 2015). Sample surveys offer one possible means of documenting people's perceptions, but they are not particularly good at documenting the feelings and historical experiences that underlie people's responses to standardized questionnaires. Recognizing the limitations of sample survey research, I sought to document the ways in which local leaders, elders, and the larger community perceived the origins and longer-term implications of *Socio Bosque* for land, livelihood and community. Whether and to what extent such responses were shared by other community members is of course limited, but they do offer an important lens through which I can document and interpret the connection between traditional Indigenous knowledge and *Socio Bosque*. As a result of a lack of systematic exploration of intra-household experiences, this research is not able to discern the impacts of *Socio Bosque* on individual households and livelihoods or the incentive payment distribution at an individual level, but community focus groups offered unique opportunities to hear communal experiences with *Socio Bosque* and gain an understanding of the communal perspectives on Indigenous knowledge and relationships with nature. Therefore, the trade-off is an understanding of larger, community views about the program, community participation and inclusion, and communal and individual relationships with *Pachamama*.

A third limitation is the insufficient perspective of women throughout the interviews and field research. While this limitation presents a clear gap in the research, it also allows for further avenues of investigation on the gendered aspects of PES programs and how they disproportionately affect women. The voices of various *mamitas* are present within interviews and focus groups and the views of many *taytas* were expressed in the presence of *mamitas* who generally agreed with these opinions. However, statements made by men in front of women do not necessarily reflect women's opinions due to power imbalances in the communities. Inadequate opinions of women in the study presents a largely male centred analysis of the impacts of *Socio Bosque* on the communities. This focus does not discredit the empirical analysis and conclusions that are drawn from the research, but it does provide questions about the inter and intra community effects of *Socio Bosque* on women in particular and the power dynamics at play.

One final limitation is the inter-generational opinions and views that are missing from the study. Since the field research was carried out in rural communities, many of the younger generation has migrated to the city in search of work. As a result, their opinions are somewhat absent from the chapters below. That is not to say that none of the opinions or views expressed below represent a younger generation, but a large proportion of participants in focus groups and community interviews were from an older generation that may have different views from younger people who have different experiences. As was suggested in a number of interviews and focus groups, the younger generation has lost touch with nature and the sense of community or *sumak kawsay* that is important to the older generation. As one *mamita* put it when discussing what *sumak kawsay* means to her and how the younger generation lacks respect towards the elders, the youth today "think they are better, that they have more education, and that they know more. Before, even passing the dog, we would greet it (*Los jóvenes piensen que son más y tienen más educación y saben más son mejores. Antes hasta pasando el perro nos saludamos*) (*Mamita* interviewed in Community 3, 2018-3-26). While these limitations exist within the research, they do not limit the rich empirical evidence that was gathered and the conclusions that can be drawn from the evidence presented below.

Chapter 5

Regulating Local Behaviours: The Institutionalization of *Socio Bosque*

5.1 Introduction

In order for PES programs to function, certain institutional arrangements and bureaucratic requirements are needed at the state level that regulate local actions and behaviours. These arrangements and requirements involve new laws, procedures, rules, regulations and institutions that are established for assigning value, selecting beneficiaries, allocating payments, enforcing contracts, and finally, prohibiting other forms of extraction, processing and access to ecosystems. Some scholars argue that these institutional changes can alter local environmental practices and, at the same time, "open up new spaces for participation and negotiation over rights" (McElwee et al., 2014: 436; see also Shapiro-Garza, 2013a, Higgins et al., 2012). Similarly, Agrawal notes that "a reorganization of the institutional arrangements [of environmental governance] has facilitated changes in environmental practices and levels of involvement in government" (2005: 202). REDD+ describes social inclusion as a "key feature" that enables "local communities and marginalized groups to participate in, and benefit from the policies and measures that governments design, enact and implement for sustainable development" (UN-REDD, 2016). In theory, REDD+ and PES programs advocate for the inclusion and participation of marginalized and neglected groups in all aspects of these programs from development and design to implementation. As a result, the pressing question that must be asked is, to what extent do institutionalized PES programs, such as *Socio Bosque*, achieve meaningful social inclusion and participation of Indigenous communities in practice? This question will be answered by:

1. describing the institutionalization of *Socio Bosque* as a policy to achieve *buen vivir*
2. understanding the rules of inclusion and participation through the eligibility and selection process of *Socio Bosque*
3. analyzing the institutionalized performance norms, indicators, and outcomes of *Socio Bosque*

I will argue that, in contrast to the underlying economic theory and social inclusion rhetoric of market-based PES programs, the central aim of *Socio Bosque* is not meaningful social inclusion and participation of Indigenous communities, but rather to institutionalize a predictable and measurable performance regime which is itself imbedded in a historical context of unequal power relations between communities and the state. Furthermore, through the use of rules and norms, markets are heavily governed and not left to govern themselves as many free-market environmentalists argue. As a result, the rules and norms embedded in market-based environmental governance programs like *Socio Bosque* structure and constrain local actions, decisions, and participation which runs counter

to the free market ideology of market-based environmental governance instruments, such as REDD+, that claim to promote inclusion and participation of marginalized groups.

An important discussion in this chapter will revolve around the implementation of rules and norms implemented by MAE that restrict access to the *Socio Bosque* program, as well as outline measurable results to which communities must conform. In order to quantify results and achieve national and global climate change goals, the Ecuadorian state's view of society and nature is one that reduces complex relationships to easily measurable goals and indicators. The work of James Scott (1998) provides a useful framework for understanding the institutional implications of reducing society and nature to easily measurable units and, in the case of the *Kichwa* of Chimborazo, the effects on the complex relationship between the communities and *Pachamama.* As Scott (1998) notes, this narrowing view "brings into sharp focus certain limited aspects of an otherwise far more complex and unwieldy reality" (11). By applying this reductionist view, nature can be broken down into a quantifiable and measurable field of vision, making possible a "high degree of schematic knowledge, control and manipulation" (Scott, 1998: 11). Furthermore, institutionalized rules and norms disproportionately affect marginalized communities because there is an "unequal burden of seemingly equitable institutional arrangements under asymmetric social relations" (Scott, 1998: 208). Therefore, since the social and political interactions of *Socio Bosque* in Chimborazo take place within a contextual environment that marginalizes Indigenous populations, it is important to understand how "seemingly equal and symmetric institutional rules, fall unevenly on those subject to the rules" (Agarwal, 2005: 208).

A full understanding of the impacts that institutional changes in Ecuador, and the changing rules and norms incorporated within these changes, have on the meaningful inclusion and participation of Indigenous communities and local land use and resource management practices is not evident. Research on the institutional aspects of *Socio Bosque* has focused on the effects *Socio Bosque* has on decision making and institutional governance at the local level (Hayes, et al, 2015). However, few scholars have analyzed the implications institutionalized PES programs have on meaningful participation and inclusion of Indigenous communities in national climate change and environmental governance programs. PES programs are implemented into local, national, and

regional institutional hierarchies that are rooted in specific socio-economic and political contexts. In the case of the *Kichwa*, the local context and historical institutions, such as the hacienda, have marginalized and oppressed Indigenous populations and their *cosmovision*es. Therefore, it is important to understand the following two aspects of inclusion and participation within institutionalized PES programs in Indigenous communities in Chimborazo:

1. the extent to which new, participatory spaces are opened up by PES programs that improve local Indigenous involvement in the decisions surrounding environmental governance and resource use within their territory, as well as the possible barriers for marginalized communities that are created in institutionalized, state-led environmental governance programs
2. the ways in which institutionalized environmental governance programs like *Socio Bosque* create territorial restructuring of land and local relations

In order to address these questions, this chapter will briefly review some of the institutional and state arrangements in Ecuador that have provided a framework for a new era of environmental governance with programs like *Socio Bosque* becoming the implementing arm of environmental conservation in the country. To begin, I will discuss key documents that provide the overarching, institutional framework within which *Socio Bosque* is implemented. Then, I will provide a historical analysis of the creation of the *Socio Bosque* program to understand how the program developed into a national climate change strategy. Finally, I will discuss the various bureaucratic requirements, rules, norms and measurements that form part of the contract between communities that participate in *Socio Bosque* and the Ministry of Environment. By exploring these institutionalized norms and practices, this chapter will show the following:

1. *Socio Bosque* organizes complex local populations, land, and resources into simplified, legible grids that can be centrally recorded, quantified, and measured by the state (Scott, 1998)
2. While environmental governance programs in Ecuador seem to be more inclusive and participatory, a closer look reveals that unequal power relations rooted in the socio-political history and current context of Chimborazo make indigenous participation extremely superficial in an institutionalized program like *Socio Bosque*.
3. Changing institutional arrangements and bureaucratic requirements within the local context of Chimborazo are based on the history of the hacienda that delineated social norms and rules which created historically unequal power relations.

5.2 Definition of an Institution

Since a focus of this chapter is on describing the institutionalization of *Socio Bosque*, it is important to provide a clear definition of the term in order to frame the following empirical analysis. Loosely defined, institutions can be understood as "the humanly devised constraints that structure political, economic and social interaction" (North, 1991:97) or "rules of the game" that frame the conduct of individuals and organizations (Ostrom, 1990: 3). "Institutions may be seen as commonly understood codes of behaviour that potentially reduce uncertainty, mediate self-interest, and facilitate collective action" (Ostrom and Cox 2010:4-5). These "rules" can be both formal (mostly written) and informal (mostly unwritten) rules that people recognize in a given situation and the mechanisms established to enforce those rules (Dietz et al. 2002, Ostrom, 1990, Ostrom et al. 1994). Vatn's distinction of three different types of institutions within PES programs - market, hierarchy and community - will provide a useful framework for analysis (Vatn, 2010). However, it is important to understand that the reach of institutions extends far beyond written or unwritten rules and includes the institutional discourses that become embedded in normative practices and policies. As Dryzek states, "the impact of discourse can often be felt in the policies of government or international organizations…beyond affecting institutions, discourses can become embodied in institutions. When this happens, discourses "constitute the informal understandings that provide the context for social interaction" (2013: 20).

Central to the discussion on institutions are the norms and rules that guide and regulate behaviour. Norms can be defined as a "rule or standard of behaviour shared by members of a social group. Norms may be internalized —i.e., incorporated within the individual so that there is conformity without external rewards or punishments, or they may be enforced by positive or negative sanctions from without" (Encyclopedia Britannica). Ostrom (2008) describes norms as "preferences related to prescriptions about actions or outcomes that are not focused primarily on short-term material payoffs to self" (12). In contrast, rules can be defined as

> "linguistic statements similar to norms, but rules carry an additional, assigned sanction if forbidden actions are taken and observed by a monitor. For rules to exist, any particular situation must be linked to a rule-making situation and some kind of monitoring and sanctioning must exist" (Ostrom, 2008: 13).

Crawford and Ostrom (2005) differentiate norms and rules by the latter containing an "or else", which is usually enforced through sanctions.

Both formal and informal norms and rules frame the institutionalization of *Socio Bosque* and powerfully shape social practices. Within *Kichwa* communities, various norms frame social interactions. One such norm is reciprocity that, according to Lyons (2006) helped to "sustain generosity and mutual consideration as norms that hacienda Runa [indigenous] applied in judging their overlords" (92). The concept of reciprocity will be discussed in detail in Chapter 7, but for this current chapter it is important to understand how norms and rules of *Socio Bosque* affect *Kichwa* communities and how *Kichwa*, indigenous norms affect state-community interactions throughout the program. Therefore, an important question in the context of Chimborazo is how, or even if, the norms and rules of *Socio Bosque* change local norms that guide land use and resource management practices. For example, the continued impact of the formal and informal norms and rules the hacienda era that shape state-community and inter and intra-community relationships are not formalized in bureaucratic regulations but are part of the everyday life and reality of *Kichwa* community interactions with state institutions, such as the Ministry of Environment. As a result, how does the continuation of hacienda norms and rules impact community participation within *Socio Bosque*?

This chapter explores the formal and informal rules and norms that govern resource use and practice through an analysis of the institutional arrangements between the "brick and mortar" international, national, and local institutions and actors, while at the same time paying close attention to the changing discourse of these actors as it relates to environmental governance, indigenous communities, and climate change. This discourse has shaped the normative framework for the implementation of *Socio Bosque* in Ecuador and, as a result, changed land use and resource management in Indigenous communities.

5.3 The Legacy of the Hacienda and Land Reform

Before beginning the empirical analysis, it is important to briefly review the dominant institutional framework in Chimborazo, Ecuador that has guided community and state interactions and, as a result, has direct implications on Indigenous inclusion and participation in state-led environmental governance programs. The context section of this research provides an in-depth analysis of the hacienda, but for the purposes of this chapter, it is important to remember that the hacienda system has a continued influence in shaping the social, political, and economic interactions between the *Kichwa* communities of Chimborazo and the state. The current environmental governance regime in Ecuador and Chimborazo is placed within the existing framework left behind by the hacienda system. This framework organizes social, political, and economic relationships between the state and *Kichwa* indigenous communities. Therefore, the institutional analysis below must be taken into account in the light of asymmetric state-community relationships. For the purposes of this section, it is important to highlight the following:

1. The hacienda system was a small "state within the state" that controlled local economic, social, and political activity (Bretón, 2014).
2. The hacienda system was not controlled by hegemonic oppression alone, but by a complex set of formal and informal rules and regulations that guided interactions between hacienda landowner and *hausipungeros*/indigenous workers, between hacienda Indigenous peoples and the state, between the Indigenous and mestizo populations, and between hacienda Indigenous peoples and those Indigenous peoples outside of the hacienda (Tuaza, 2018; Bretón, 2014; Lyons, 2006).
3. The hacienda was not seen by Indigenous people as a regime of domination or a production unit, but was maintained under patriarchal interrelations between masters, overseers (*jipus*), and Indigenous people as "a space that guarantees survival, offers favours, rewards those who are faithful to the master, and imposes rules on the family and the community" (Tuaza, 2014: 120).

To this day, the hacienda system remains a pivotal institution in the formation of state-indigenous-mestizo relations. As Lyons demonstrates, the hacienda system was vital in shaping, and continuing to shape, how indigenous communities "engage with cultural symbols and scenarios, interpret them, make choices, rework and modify them in coming to terms with the world and pursuing their goals" (Lyons, 2006: 9). In 1964 and 1973, agrarian reform was implemented in Ecuador. The 1973

agrarian reform abolished the *huasipungo* labour system, a precarious labour relationship between Indigenous workers and hacienda landowners. The *huasipungo* relationship was one of a number of labour and social relationships between Indigenous communities and hacienda landowners. In exchange for his/her labour, the Indigenous worker (*huasipungero)* was given a miniscule salary and small plot of land (*huasipungo*) on which he could cultivate subsistence crops. The *huasipungero* also had rights to access water, firewood, and pasture on the hacienda (Becker and Tutillo, 2009). More often than not, this relationships between the *huasipungero* and the landowner became a "debt peonage" where Indigenous debt was transferred from generation to generation in a type of quasi-slavery and became engrained in the social and economic framework of Chimborazo and the everyday lives of Indigenous peoples (Guerrero, 1991a, 1991b, 1991c; Bretón, 2008, 2012). As Lyons (2006) notes, many Indigenous communities saw the *huasipungo* labour relation as a simple "fact of life" where they exchanged labour for access to land and were resigned to this exploitative relationship as normal (129).

While the *huasipungo* was part of the majority of private haciendas, the Roman Catholic church and the *Asistencia Publica* (National Welfare Program) were also large landholders in the province of Chimborazo. In the case of the church and public lands, these haciendas operated through rental agreements which involved secondary tenancy agreements (Lyons, 2006; Haney and Haney, 1987). While the labour conditions of Indigenous on these haciendas were not that of the *huasipungo*, the treatment of the Indigenous by land renters was, in many cases, abhorrent, and pay was a minimal. In the 1970s, the private, church, and state-owned haciendas owned approximately 80 percent of arable land in the province of Chimborazo (Haney and Haney, 1987: 51). The struggle of Indigenous peoples in Chimborazo against the hacienda has centred around access to land. Indigenous communities have a deep cultural and spiritual connection to land, but land has always provided livelihoods and subsistence to Indigenous communities.

The government of Ecuador's Land Reform Act of 1964 abolished the *huasipungo* labour system of servile labour on large, highland estates and placed new limits on individual land holdings, which was positive for land redistribution but also reduced the availability of open lands and pastures (Ross et al. 2017). IERAC (*Instituto Ecuatoriano de Reforma Agraria y Colonización*) was created in 1964 to oversee land redistribution, but was comprised of state officials and landowning elites without

Indigenous representation, limiting IERAC's ability to institute favourable land reform for Indigenous communities while providing economic benefits to landowners who sold their land to the institution (Goodwin, 2017). As a result, only 3 percent of Chimborazo's land was allocated to small landholders in the seven years following the 1964 reform. At the same time, former Indigenous *huasipungeros* lost the right to access hacienda pastures and other resources, such as water and firewood, that their previous *hausipungo* status permitted (Korovkin, 2003). While some view the 1964 land reform as a failure in regards to land redistribution (Barsky 1984; Guerrero, 1983), Korovkin (2003) argues that the 1964 reform had other positive effects, such as political and institutional gains that led to the creation of Indigenous organizations, such as *Ecuarunari - Confederación de Pueblos de la Nacionalidad Kichwa del Ecuador* (Confederation of Peoples of *Kichwa* Nationality) which, in turn, increased Indigenous participation in local organizations and local and national politics. In order to appease a highly mobilized peasant movement in Chimborazo, the Ecuadorian government increased land redistribution, and by 1988 19.3 percent of the total amount of provincial land had been redistributed (Korovkin, 2003: 134). However, in spite of increased land distribution, small farms (under five hectares) in 1989 were 87 percent of agricultural units, but controlled only 17 percent more farmland in Chimborazo, as compared to 1954 where farms under five hectares accounted for 83 percent of all farms and controlled as little as 15 percent of the province's land (Korovkin, 2003).

The 1973 agrarian reform increased land redistribution as the Ecuadorian government implemented capitalist modernization of agricultural production and efficiency as a means of promoting national development. As a result, unfarmed or underutilized land was subject to expropriation, and ex-hacienda owners moved from traditional food crop production to livestock which fulfilled land productivity goals in the eyes of IERAC and also reduced hacienda dependence on local labour (Korovkin, 2003). However, in practice, the Ecuadorian government invested very little in the modernization of agriculture and livestock for rural Indigenous communities. In contrast, under the guise of modernization, landowners saw diary farming as a way to appease IERAC's demands on land productivity and to keep large landholdings. The dairy industry was accompanied by very little technological or productivity improvements and today is based on small-landholdings, many in Indigenous communities, who rely on traditional methods, resulting in yields well below national averages (*Centro de la Industria Láctea del Ecuador*, 2015; Zambrano, 2016).

The land reforms in 1964 and 1973 gave Indigenous peoples the right to purchase lands from former hacienda owners but this also resulted in greater household and community debt. As Indigenous communities sought to repay these debts, the result was increasing pressure on land and *páramo* ecosystems through agricultural and livestock activities (Ross et al. 2017). While agrarian reform and the creation of IERAC were instrumental in land redistribution, Indigenous communities were not passive agents waiting for handouts. Many communities struggled to obtain land from ex-haciendas, even well after land reform. Indigenous mobilization was crucial in "determining the amount of land redistributed but also in determining the conditions under which the land was transferred" (Goodwin, 2017: 587).

Nearly 40 years and two agrarian reforms later seemingly did little to address the issue of adequate land redistribution and inequality, and access to arable land remain barriers for Indigenous communities (Korovkin, 2003; Cameron, 2010). The consequences of this unequal distribution of land can be seen today as Indigenous communities continue to exploit land on the slopes of the mountains, putting in jeopardy the fragile *páramo* ecosystem. Indigenous struggles for land continued into the 80s and 90s, as the statement below from *Ecuarunari* indicates:

> Our fundamental problem is that the majority of us have a small parcel of land that does not yield enough to support our families nor satisfy our most basic needs. If our parents or we were able to secure a huasipungo or plot of land, we or our children do not even have a handful of land … What land are we going to leave our children? None! We cannot divide our land anymore. (*Ecuarunari* 1984: 16 cited in Goodwin, 2017)

Access to land and adequate land reform was part of the 1990 Indigenous *levantamiento* (uprising) that brought the issue of sovereign Indigenous control over their land and territory to the forefront (Becker, 2008). However, the impact of the government's resulting *Ley de Desarrollo Agrario* was minimal and Indigenous communities continue to be marginalized from genuine participation in decision making and policies surrounding land distribution (Bretón, 1997; Goodwin, 2007).

In spite of state rhetoric, recent attempts at improving land access for Indigenous communities under the Correa regime have also been largely unsuccessful. Correa himself recognized the importance of land redistribution when, in 2010, he declared that "land tenure in Ecuador has not

changed substantially and it is one of the most unequal distributions in the world; the Gini coefficient exceeds 0.9 in terms of land tenure" (*tenencia de la tierra en Ecuador no ha cambiado sustancialmente y es una de las distribuciones más inequitativas del mundo; el coeficiente de Gini supera el 0,9 en cuanto a tenencia de tierra*) (Le Monde Diplomatique, cited in Acosta, 2013b: 16). As a way out of this inequality, Correa stated that "large landowners sell their land and in this way tenure is democratized, that is what is sought. This has been done in many parts of the world. It is more efficient than agrarian reform" (*que los grandes terratenientes vendan sus tierras y de esta forma se democratice la tenencia, eso es lo que se busca, esto se ha hecho en muchas partes del mundo, es más eficiente que la reforma agraria*) (Acosta, 2013b: 16). Furthermore, the Article 282 of the Constitution establishes that "the state will regulate the use and access to land that must fulfill a social and environmental function. A national land fund, established by law, will regulate equitable land access for peasants. Large estates and concentration of land are prohibited, as well as hoarding or privatization of water and its sources" (*El Estado normará el uso y acceso a la tierra que deberá cumplir la función social y ambiental. Un fondo nacional de tierra, establecido por ley, regulará el acceso equitativo de campesinos y campesinas a la tierra. Se prohíbe el latifundio y la concentración de la tierra, así como el acaparamiento o privatización del agua y sus fuentes)*, while Article 281 outlines that the state will "promote redistributive policies that allow the peasantry access to land, water and other productive resources" (*promover políticas redistributivas que permitan el acceso del campesinado a la tierra, al agua y otros recursos productivos*). In spite of the importance of land redistribution in the state's guiding documents, the government of Ecuador has not implemented any broad reaching land redistribution policies, but has opted to maintain the status quo of the agrarian structure (Hidalgo, 2013).

Even with the abolition of the *huasipungo* relation and subsequent land reform in the 1960s and 70s, the Ecuadorian state has not made equal land distribution a priority, specifically for the Highland *Kichwa* communities. Furthermore, the *hacienda* and its institutionalized rules and regulations that accompanied this economic and social systems through hegemonic practices remain at the forefront of the Indigenous social imaginary. It is important to note that, as Lyons (2005) argues, hegemony is not limited to physical coercion and, often times in practice consent, coercion, and persuasion are indistinguishable. In this context, hegemony is the "struggle to define the 'universal', to elevate contingent, local sets of ideas to the status of normal, true, and good so that they seem commonsensical" (Fischer, 2014: 78). Therefore, the local, historical context rooted in the hacienda,

the *huasipungo* labour system, and inadequate land reforms limit Indigenous inclusion and participation in *Socio Bosque* to a framework delineated by the normalized and "commonsensical" social practices and rules of the hacienda, which as Tuaza (2014) suggests, confines social, and political participation of Indigenous communities and marginalizes meaningful participation. Therefore, meaningful inclusion and participation within this context is limited to an institutionalized state framework of rules and norms that delineate what inclusion and participation look like.

5.4 Local Memories of the Hacienda

The following section uses focus group and key informant interviews to provide an understanding of the history and memory of land and social relations under the hacienda system. The aim of engaging with local communities about the hacienda was to understand land use and social relations during the hacienda era and how these uses and relations affect present day interactions between communities and land, and communities and the state. Many of the community members who participated in this research remembered the *páramo*s during the times of the hacienda as "having more grass, native animals, and plants that are now gone" (*antes había más paramo, animales nativos y plantas que ahora no hay*), recalled one *tayta* (Interviewed in Community 5, 2018-03-26). Of particular interest is that many community members discussed the change in water. Recollections of an abundance of water in the past was common during numerous community interviews and focus groups. One community member recalled that "during the hacienda, there was a lot of water…there were times where I could not cross the river, due to the amount of water. Now, that river is nearly dried up" *(durante el tiempo de la hacienda había mucha agua…había tiempos donde no podía cruzar el rio por el agua. Ahora el rio es casi seco)* . Changes brought about by the two agrarian reforms had drastic impacts on how Indigenous communities use the surrounding *páramo*s.

The 1964 and 1973 agrarian reforms sought to expand the agricultural frontier to increase production. Hacienda landowners were forced to redistribute their land; the Ecuadorian Institute of Agrarian Reform and Colonization (IERAC) paid landowners for their lands and subsequently sold the lands to indigenous communities. In many cases, communities were indebted to the IERAC for upwards of 20 years, with some communities paying off debt in 2018. In order to be able to pay the

economic debt to the IERAC as soon as possible, many communities slashed and burned the *páramo* vegetation to plant cash crops, such as potatoes and onions (Korovkin, 2002). The abolition of the hacienda system, the *huasipungo* labour relations, and the subsequent sale of land resulted in Indigenous communities receiving the land on the slopes of the mountains while hacienda landowners kept the much more fertile land of the valleys. After agrarian reform, "less than half the land reallocated by IERAC fell into the category of farmland; the rest was unsuitable for either agricultural or pastoral activities", with some estimates of only 20.1 percent of land transferred to Indigenous communities as suitable for crops or livestock (Banco Central del Ecuador and Ecofuturo, cited in Korovkin, 2003: 134).

In hacienda times, agricultural activity reached up to 3,200 metres above sea level, but when the Indigenous communities acquired the lands they extended agricultural production to higher ecological levels. As a result, indigenous communities began to adapt their relationship with the *páramo*s in order to maintain their land and livelihood. However, the encroaching agricultural frontier into the *páramo* not only changed the communities' economic relationship with nature, but it also had long-lasting effects on land productivity and local water sources due to the deterioration of the unique *páramo* ecosystem. In Community 2, one *tayta* stated that the *páramo* is "dry, there is no water. Ten years ago, there was plenty of water". During focus groups in Community 3, the community recalled that there were two lakes in the altitude of the *páramo* and these lakes no longer exist. Community members demonstrated how they "suffer for water" in the high altitude *páramo*. Water no longer exists and they are using *Socio Bosque* incentive payments to build an irrigation system to make land arable.

After the agrarian reform, communities needed to pay the debts incurred by purchasing their land from IERAC. Various communities interviewed during my time in the field discussed changes to land use that took place after agrarian reform and the abolition of the *huasipungo* system. Communities grew various crops to pay the debt to IERAC, while others planted pine trees to sell as lumber. Other community members paid their debt by gathering sheep fertilizer to sell. One of the main changes to the *páramo* ecosystem was commercial agricultural production. Potatoes were grown in many communities and the first years of potato cultivation following the purchase of the

land were profitable. However, in the following years the production decreased, and the quality of the soil was affected. In contrast to the land in the valleys, which is fertile and with a considerable vegetative layer, the soils of the higher altitudes are fragile (Llambí, and Cuesta, 2014). The arable layer is two metres of soil, while the surface is composed of sand and stone. As the tillage progresses, the fertile soil of the slope drops annually and in the upper part only stones and sand remain. Also, during the years of drought, the fragile soil of clay is lifted by the winds and in the winter the torrents of water drag away the fertile soil.

The problem of desertification was aggravated by the introduction of the tractor and the excessive use of chemical fertilizers and pesticides. The use of chemical fertilizers replaced the old tactic of fertilizing the field with the manure of cows, donkeys, horses, and sheep. This change in traditional agricultural practices has had adverse effects on the productive capacity of Indigenous land. Communities have become dependent on external economic and supply systems and the chemical fertilizers and pesticides have damaged soil structure and polluted water sources (Bebbington, 2004). Furthermore, due to damaged soil, communities expand livestock and agricultural activity up the mountains into previously untouched *páramos,* further exacerbating the environmental degradation (Lyons, 2006; Tuaza, 2014; Ross et al. 2017; Appenzeller 2019). As a result, communities move higher up the mountain range, slashing and burning the *páramo* to plant crops and maintain livelihoods. The effects of the hacienda outlined above and the way in which agrarian reform was implemented create a unique, local context in which *Socio Bosque* is implemented. This context is embedded in the institutional framework of economic, political, social, and cultural relations left behind by the aftermath of the reforms of the hacienda system. While the hacienda and the *huasipungo* labour system have been abolished in practice, the ongoing effects of a system that dominated the Ecuadorian landscape for nearly 300 years continue to shape land use and resource management practices, as well as inter and intra communal relations and state-community relations and interactions.

5.5 Institutionalized Environmental Governance in Ecuador

Since the 2006 election of Rafael Correa's *Alianza PAIS* political party and its *Revolución Ciudadana* agenda, the Ecuadorian government strengthened state mechanisms and institutions to achieve the

inclusion and participation of civil society in their new, pluri-national state. However, some scholars have argued that new institutions and policies put in place during the *Revolución Ciudadana* have not led to deeper structural change that was promised in the 2008 Constitution (González and Javier, 2013). The state prioritized sovereign, national policies and programs that proposed alternative ways to combat climate change, such as the Yasuni ITT initiative and *Socio Bosque*. While *Socio Bosque* was hailed by the state as a sovereign national climate change program, a closer look reveals that the Ecuadorian state's compliance with international climate change frameworks, such as the UNFCCC and eventually REDD+, is a key motivator in environmental governance and climate change policies in Ecuador. The following section will outline the institutional framework of climate change adaptation and mitigation in Ecuador and analyze key documents from various state institutions that guide climate change strategies in the country. An understanding of the institutionalized framework at the national level will lay the foundation for a micro-level analysis of the institutionalized norms and practices that affect *Kichwa* communities through climate change policies and programs, specifically *Socio Bosque*.

5.6 State Centric Governance

The new Ecuadorian Constitution, written in 2008, places the state at the centre of environmental governance policy and resource management as the protector of nature. The state is not the only environmental governance actor outlined in the Constitution. Article 15 highlights environmental governance as a matter of public interest by stating that the Ecuadorian population has the right to

> "live in a healthy and ecologically balanced environment…[and that] environmental conservation, the protection of ecosystems, biodiversity and the integrity of the country's genetic assets, the prevention of environmental damage, and the recovery of degraded natural spaces are declared matters of public interest" (Constitution of Ecuador, Art. 14).
>
> *"vivir en un ambiente sano y ecológicamente equilibrado…[y que] Se declara de interés público la preservación del ambiente, la conservación de los ecosistemas, la biodiversidad y la integridad del patrimonio genético del país, la prevención del daño ambiental y la recuperación de los espacios naturales degradados"*

However, how "public interest" is achieved is clearly placed within the centralized power of the state through the state guaranteeing a model of sustainable development that is "environmentally balanced, respects cultural diversity, and conserves biodiversity and ensures the natural regeneration of ecosystems" (*ambientalmente equilibrado y respetuoso de la diversidad cultural, que conserve la biodiversidad y*

la capacidad de regeneración natural de los ecosistemas) (Art. 391.1; Art. 395). The same section of the Constitution (Nature and Environment) obligates the state to implement environmental governance policies, while Section 2 states that biodiversity conservation is of public interest and declares that the state exercises administration and governance sovereignty over biodiversity (Section 2, Art. 400). Of particular interest is Article 74, which states that environmental services cannot be appropriated and are under total regulation of the state.

Clearly, the state controls the value placed on ecosystem services and the resulting incentive payment framework, as well as the overarching environmental governance initiatives carried out in Ecuador. Furthermore, as *Socio Bosque* becomes increasingly tied to REDD+ efforts in Ecuador, complications may arise in the distribution of incentive payments received from REDD+ and communities may lose control over payments received from PES programs linked to REDD+. The potential for REDD+ to affect community control over incentive payments is seen in The Forest Dialogue background paper on REDD+ Readiness where it states while MAE has agreed "in principle" that most benefits should go directly to those who reduce deforestation and conserve ecosystems at the local level, "specific benefit distribution [of REDD+ funds] will be defined through environmental services regulations, pursuant to what is stipulated in Art. 74 of the Constitution" (Hübenthal et al., 2010: 23 – 24).

It is clear that the wording within the Constitution and the subsequent interpretation of this wording by international institutions, such as REDD+, place a centralized, Ecuadorian state at the forefront of determining how financial benefits paid for environmental services will be distributed, placing Indigenous communities in a precarious position, balancing on the political whims and wills of the Ecuadorian state. While the 2008 Constitution ushered in some changes within Ecuadorian political and social structures, it was a continuation of a political legacy that has tended to centralize political power and executive control over civil society, while at the same time allowing powerful interest groups to influence policy (Conaghan, 2017). As de la Torre argues, new technocrats and bureaucratic experts under the Correa government differed from their neoliberal predecessors in that they came from academia and NGOs instead of private financial institutions and international organizations like the International Monetary Fund (de la Torre, 2013). However, like neoliberal

technocrats, Correa's regime embraced a "moral and redemptive mission" of rebuilding their nation by achieving *buen vivir* (de la Torre, 2013; SENPLADES, 2009)

In regards to specific environmental governance and climate change policies, Article 414 of the Constitution states that

> "the State shall adopt adequate and cross-cutting measures for the mitigation of climate change, by limiting greenhouse gas emissions, deforestation, and air pollution; it shall take measures for the conservation of the forests and vegetation; and it shall protect the population at risk" (Constitution of Ecuador).
>
> *"El Estado adoptará medidas adecuadas y transversales para la mitigación del cambio climático, mediante la limitación de las emisiones de gases de efecto invernadero, de la deforestación y de la contaminación atmosférica; tomará medidas para la conservación de los bosques y la vegetación, y protegerá a la población en riesgo"*

Furthermore, the state has the obligation to "incentivize natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem" (Art. 71) (*incentivará a las personas naturales y jurídicas, y a los colectivos, para que protejan la naturaleza, y promoverá el respeto a todos los elementos que forman un ecosistema*), as well as "compensate individuals and communities that depend on affected natural systems" (Art. 72) (*Indemnizar a los individuos y colectivos que dependan de los sistemas naturales afectados*). The state is given the authority to "establish the most effective mechanisms to achieve the restoration and shall adopt adequate measures to eliminate or mitigate harmful environmental consequences" (Art. 72) (*establecerá los mecanismos más eficaces para alcanzar la restauración, y adoptará las medidas adecuadas para eliminar o mitigar las consecuencias ambientales nocivas*) and to regulate the appropriation, production, delivery, use, and development of environmental services (Constitution of Ecuador, Section 7). These articles clearly identify the role of the state as the central figure that organizes, implements, and governs climate change mitigation efforts and places programs like *Socio Bosque* at the centre of environmental governance and conservation. The table below provides a brief outline of the number of articles within the Constitution that are related to environmental governance.

Table 4: The Constitution and Environmental Governance

Article	
Preamble	A new form of citizen coexistence in diversity and harmony with nature to achieve *buen vivir,* or *sumak kawsay*

	Una nueva forma de convivencia ciudadana, en diversidad y armonía con la naturaleza, para alcanzar el buen vivir, el sumak kawsay
14	The right of the population to live in a healthy and ecologically balanced environment is recognized, which guarantees sustainability and *buen vivir, sumak kawsay*. The preservation of the environment, the conservation of ecosystems, biodiversity and the integrity of the country's genetic heritage, the prevention of environmental damage and the recovery of degraded natural spaces are declared of public interest. *Se reconoce el derecho de la población a vivir en un ambiente sano y ecológicamente equilibrado, que garantice la sostenibilidad y el buen vivir, sumak kawsay.* *Se declara de interés público la preservación del ambiente, la conservación de los ecosistemas, la biodiversidad y la integridad del patrimonio genético del país, la prevención del daño ambiental y la recuperación de los espacios naturales degradados.*
57	Indigenous communities, peoples and nationalities are recognized and guaranteed, in accordance with the Constitution and with covenants, conventions, declarations and other international human rights instruments. *Se reconoce y garantizará a las comunas, comunidades, pueblos y nacionalidades indígenas, de conformidad con la Constitución y con los pactos, convenios, declaraciones y demás instrumentos internacionales de derechos humanos.* To preserve and to promote their biodiversity management practices and their natural environment, the State will establish and execute programs, with the participation of the community, to ensure the conservation and sustainable use of biodiversity. *Conservar y promover sus prácticas de manejo de la biodiversidad y de su entorno natural. El Estado establecerá y ejecutará programas, con la participación de la comunidad, para asegurar la conservación y utilización sustentable de la biodiversidad.*
71	The State will encourage natural and legal persons, and collectives, to protect nature, and promote respect for all the elements that form an ecosystem. *El Estado incentivará a las personas naturales y jurídicas, y a los colectivos, para que protejan la naturaleza, y promoverá el respeto a todos los elementos que forman un ecosistema.*
74	Individuals, communities, peoples and nationalities will have the right to benefit from the environment and natural resources that allow them to live well (*buen vivir*). Environmental services will not be subject to appropriation; their production, provision, use and exploitation will be regulated by the State. *Las personas, comunidades, pueblos y nacionalidades tendrán derecho a beneficiarse del ambiente y de las riquezas naturales que les permitan el buen vivir.* *Los servicios ambientales no serán susceptibles de apropiación; su producción, prestación, uso y aprovechamiento serán regulados por el Estado.*
267.4	Rural parish governments will exercise the following exclusive powers, notwithstanding the additional ones determined by law: To encourage the development of community productive activities, the preservation of biodiversity and the protection of the environment

	Los gobiernos parroquiales rurales ejercerán las siguientes competencias exclusivas, sin perjuicio de las adicionales que determine la ley: *Incentivar el desarrollo de actividades productivas comunitarias, la preservación de la biodiversidad y la protección del ambiente.*
275	The development regime is an organized, sustainable and dynamic set of economic, political, socio-cultural and environmental systems which guarantee the realization of *buen vivir*, or *sumak kawsay* The State shall plan the development of the country to guarantee the exercise of rights, the achievement of the objectives of the development regime and the principles enshrined in the Constitution. Planning will promote social and territorial equity, promote consultation, and be participatory, decentralized, and transparent. *Buen vivir* will require that people, communities, peoples and nationalities effectively enjoy their rights and exercise responsibilities within the framework of interculturality, respect for their diversity, and harmonious coexistence with nature. *El régimen de desarrollo es el conjunto organizado, sostenible y dinámico de los sistemas económicos, políticos, socio-culturales y ambientales, que garantizan la realización del buen vivir, del sumak kawsay.* *El Estado planificará el desarrollo del país para garantizar el ejercicio de los derechos, la consecución de los objetivos del régimen de desarrollo y los principios consagrados en la Constitución. La planificación propiciará la equidad social y territorial, promoverá la concertación, y será participativa, descentralizada, desconcentrada y transparente.* *El buen vivir requerirá que las personas, comunidades, pueblos y nacionalidades gocen efectivamente de sus derechos, y ejerzan responsabilidades en el marco de la interculturalidad, del respeto a sus diversidades, y de la convivencia armónica con la naturaleza.*
387	[The state] will promote the generation and production of knowledge, to encourage scientific and technological research, and to enhance ancestral knowledge in order to contribute to the realization of *buen vivir*, or *Sumak kawsay*. *[El estado] promover la generación y producción de conocimiento, fomentar la investigación científica y tecnológica, y potenciar los saberes ancestrales, para así contribuir a la realización del buen vivir, al sumak kawsay.*
391	The State will generate and apply demographic policies that contribute to a balanced territorial and intergenerational development and guarantee the protection of the environment and the security of the population, within the framework of respect for the self-determination of people and diversity. *El Estado generará y aplicará políticas demográficas que contribuyan a un desarrollo territorial e intergeneracional equilibrado y garanticen la protección del ambiente y la seguridad de la población, en el marco del respeto a la autodeterminación de las personas y a la diversidad.*
395.1	The State will guarantee a sustainable development model, environmentally balanced and respectful of cultural diversity, that conserves biodiversity and the natural regeneration capacity of ecosystems and ensures the satisfaction of the needs of present and future generations.

	El Estado garantizará un modelo sustentable de desarrollo, ambientalmente equilibrado y respetuoso de la diversidad cultural, que conserve la biodiversidad y la capacidad de regeneración natural de los ecosistemas, y asegure la satisfacción de las necesidades de las generaciones presentes y futuras.
395.2	Environmental management policies will be applied transversally and will be mandated by the State at all levels and by all natural or legal persons in the national territory. *Las políticas de gestión ambiental se aplicarán de manera transversal y serán de obligatorio cumplimiento por parte del Estado en todos sus niveles y por todas las personas naturales o jurídicas en el territorio nacional.*
400	The State will exercise sovereignty over biodiversity, whose administration and management will be carried out with intergenerational responsibility. The conservation of biodiversity and all its components, in particular agricultural and wild biodiversity and the country's genetic heritage, is declared of public interest. *El Estado ejercerá la soberanía sobre la biodiversidad, cuya administración y gestión se realizará con responsabilidad intergeneracional.* *Se declara de interés público la conservación de la biodiversidad y todos sus componentes, en particular la biodiversidad agrícola y silvestre y el patrimonio genético del país.*
406	The State will regulate the conservation, management and sustainable use, recovery, and domain limitations of fragile and threatened ecosystems; among others, the *páramo*s, wetlands, cloud forests, dry and humid tropical forests and mangroves, marine and coastal marine ecosystems. *El Estado regulará la conservación, manejo y uso sustentable, recuperación, y limitaciones de dominio de los ecosistemas frágiles y amenazados; entre otros, los páramos, humedales, bosques nublados, bosques tropicales secos y húmedos y manglares, ecosistemas marinos y marinos-costeros.*

The state-centric focus of environmental governance policies and programs begins at the national level. The Constitution clearly outlines the overarching framework to which environmental governance and climate change strategies must conform. Based on this constitutional framework, various institutions, committees and strategies have been created to achieve a bureaucratic structure that can respond to the constitutional requirements.

5.7 National Strategy for Climate Change

At a national level, the *Comité Interinstitucional de Cambio Climático* - CCIC (Inter-institutional Committee on Climate Change) was created to coordinate and articulate climate change policy measures across government institutions. The CICC has a technical secretariat in MAE called the *Subsecretaria del Cambio Climático* (Climate Change Sub-secretariat) whose principal role, among others, is to lead mitigation and adaptation actions in the country, including the implementation of communication, finance and technology mechanisms (ENCC, 2012: 17). The committee is made up of representatives from nine

different ministries and secretariats. At the local level, *Gobiernos Autónomos Descentralizados* – GAD (Decentralized Autonomous Governments), should play a protagonist role in the implementation of climate change policies, measures, and actions but very little evidence of municipal involvement in *Socio Bosque* or clear environmental governance policies and programs was found. Each GAD is responsible for its own *Plan de desarrollo y ordenamiento territorial* - PDOT (Territorial Organization and Development Plan) which organizes the regional, provincial, county and parish development planning.

These plans are overseen by the central National Planning and Development Secretariat (SENPLADES). SENPLADES also develops the *Estrategia Nacional Territorial* - ENT (National Territorial Strategy), through which the State has ordered and organized the social and spatial dimensions of local resource governance. According to the Ecuadorian government, all land is considered a "multidimensional and dynamic social construction" that is used as a means of articulating national public policy (SENPLADES, 2013: 353). According to the ENT, these articulations manifest themselves through a new model of state management based on the decentralization of government institutions and the strengthening of state presence in local territories in order to generate new emphases of development and to enhance the attention and management of the state in local territories (SENPLADES, 2013: 380). In other words, environmental governance programs like *Socio Bosque* are strategic state enterprises whose principal objective is to achieve the "conformation of a new regional territorial structure under Objective 3: Guarantee the rights of nature for current and future generations" (SENPLADES 2013: 27).

The *Estrategia Nacional de Cambio Climático* - ENCC (National Strategy for Climate Change) is a key document that guides national environmental governance discourse and practice in Ecuador. In its own words this document will "guide and dictate the actions in orderly and coordinated actions and measures that Ecuador needs to promote to prepare the Nation to face extreme climatic events of greater intensity and frequency" (*guiará y dictará de manera ordenada y coordinada las acciones y medidas que el Ecuador necesita impulsar para preparar a la Nación a enfrentar los eventos extremos climáticos de mayor intensidad y frecuencia*) (ENCC, Prologue). The document outlines the levels of management for climate change mechanisms and seeks to establish planning and territorial organization processes in an articulated manner between the central government and the GADs (72). The ENCC is created "to facilitate the

adjustment and implementation of the other plans contemplated in the Strategy" (*para facilitar el ajuste e implementación de los otros dos planes contemplados en esta Estrategia*) and has a principal objective of creating the necessary environment and implementing programs that help to overcome the main barriers that hinder the implementation of the ENCC (72). The plan goes on to identify 4 main barriers: 1) limited information; 2) limited involvement and knowledge within civil society and the public and private sectors; 3) limited human and institutional capacity; and 4) limited access to technology and financing (*1) escasa información; (2) limitado involucramiento y conocimiento de la Sociedad Civil, y de los sectores público y privado; (3) limitadas capacidades humanas e institucionales; y (4) limitado acceso a tecnología y financiamiento.)* (72). The Strategy outlines the normative framework for climate change in the country that is to be guided by the Constitution, the National Development Plan, sectoral policies and agendas which "organize Ecuadorian public management [identified in] the Constitution of the Republic: strategic sectors[12], social sectors and productive sectors, and the institutional framework and key actors" (*Para organizar la gestión pública ecuatoriana, la Constitución de la República identifica Sectores Estratégicos, Sectores Sociales y Sectores Productivos*) (72). The ENCC outlines 9 guiding principles for implementation: 1. Regional and international articulation; 2. Consistency with international principles on climate change; 3 Emphasis on local implementation; 4. Environmental Integrity; 5. Citizen participation; 6. Proactivity; 7. Protection of vulnerable groups and ecosystems; 8. Inter-generational responsibility; and 9. Transversality and integrality. Of particular interest is Citizen Participation which, according to the document, is confined to the framework outlined in the *Ley Orgánica de Participación Ciudadana* (Organic Citizen Participation Law, 2010) though *Consejos Ciudadanos Sectoriales* (Citizen Sectorial Councils) that "constitute a space of dialogue between Civil Society and the Government for a public management that harmonizes interests from different actors" (*constituyen el espacio de diálogo entre la Sociedad Civil y el Gobierno para una gestión pública que armonice los intereses de distintos actores*) (ENCC, 19). Therefore, participation is limited to a governmental framework confined within bureaucratic norms and practices defined and carried out by and within the state system, a system which is structured through various institutions, ministries, secretariats and sub-secretariats that the state has organized into committees and councils.

[12] The strategic sectors are identified as: energy in all its forms, telecommunications, non-renewable natural resources, transportation and refining of hydrocarbons, genetic biodiversity and heritage, radioelectric spectrums and water.

The ENCC seeks to eliminate various barriers to a coordinated climate change plan. These barriers, according to the strategy, will be overcome by inter-institutional and inter-sectorial articulation across various government institutions at the local and national level, civil society and the private sector. The following table shows the complexities of inter and intra institutional cooperation sought by the ENCC by the number of strategic actors the state deems necessary for the creation and strengthening of the conditions necessary to implement the national climate change strategy.

Table 5: National Plan Stakeholders

Stakeholders in the National Climate Change Strategy for the Creation and Strengthening of Conditions	
National Secretariats	National Water Secretariat – SENAGUA
	National Secretariat for Superior Education, Science, Technology and Innovation – SENESCYT
	National Secretariat for Planning and Development - SENPLADES
Implementing Ministries	Ministry of Agriculture, Livestock and Fisheries - MAGAP
	Ministry of Environment – MAE
	Ministry of Electricity and Renewable Energy -MEER
	Ministry of Non-renewable Natural Resources - MRNNR
	Ministry of Exterior Relations, Commerce and Integration - MRECI
	Ministry of Urban Development and Housing - MIDUVI
	Ministry of Industry and Productivity – MIPRO
	Ministry of Public Health – MSP
	Ministry of Transport and Public Works – MTOP
Coordinating Ministries	Coordinating Ministry of Natural and Cultural Heritage – MCPNC
	Coordinating Ministry of Strategic Sectors – MCSE
	Coordinating Ministry of Economic Policy – MCPE
	Coordinating Ministry of Policy and Decentralized Autonomous Government - MCPGAD
	Coordinating Ministry of Production, Employment and Competitiveness - MCPEC
	Coordinating Ministry of Social Development – MCDS
Government Investigation Institutions	National Institute of Farming Investigation – INIAP
	National Irrigation Institute – INR
	Oceanographic Institute
	Institute for Eco-development in the Amazonic Region - ECORAE
	Military Geographic Institute – IGM
	National Institute for Geological Metallurgical Mining Investigation
	National Pre-investment Institution
	Ecuadorian Agro-Quality Assurance Agency - Agrocalidad
	National Statistics and Census Institute – INEC
	Ecuadorian Institute of Intellectual Property – IEPI
	National Institute of Meteorology and Hydrology - INAMHI
	National Fisheries Institute – INP
	Integrated Natural Resources Remote Sensor Survey Center – CLIRSEN
GADs	Decentralized Autonomous Governments – GADs
Civil Society Organizations	Civil Society

The ENCC considers *Socio Bosque* as a part of the overall national mitigation strategy as well, a strategy which is outlined to include the following actors.

Table 6" National Mitigation Plan Stakeholders

National Mitigation Plan Actors	
Government Organizations	
National Secretariats	National Water Secretariat – SENAGUA
	National Secretariat for Superior Education, Science, Technology and Innovation – SENESCYT
	National Secretariat for Planning and Development – SENPLADES
Implementing Ministries	Ministry of Agriculture, Livestock and Fisheries – MAGAP
	Ministry of Environment – MAE
	Ministry of Electricity and Renewable Energy -MEER
	Ministry of Transport and Public Works – MTOP
Coordinating Ministries	Coordinating Ministry of Natural and Cultural Heritage – MCPNC
	Coordinating Ministry of Strategic Sectors – MCSE
	Coordinating Ministry of Production, Employment and Competitiveness – MCPEC
Government Investigation Institutions	National Institute of Farming Investigation – INIAP
	National Institute of Meteorology and Hydrology – INAMHI
	Integrated Natural Resources Remote Sensor Survey Center – CLIRSEN
GADs	Decentralized Autonomous Governments - GADs
Civil Society Organizations	Private Sector
	Universities
	Investigation Institutes
	Citizens
	Communities, peoples and nationalities

The ENCC also contains a list of key actors in the implementation of the national adaptation plan, of which *Socio Bosque* is seen as an integral tool for adaptation to climate change.

Table 7: National Adaptation Plan Stakeholders

National Adaptation Plan Stakeholders	
National Secretariats	National Water Secretariat – SENAGUA
	National Risk Management Secretariat – SNGR
	National Secretariat for Superior Education, Science, Technology and Innovation – SENESCYT
	National Secretariat for Planning and Development – SENPLADES
Executing Ministries	Ministry of Urban Development and Housing - MIDUVI
	Ministry of Agriculture, Livestock and Fisheries – MAGAP
	Ministry of Environment – MAE
	Ministry of Economic and Social Inclusion – MIES
	Ministry of Electricity and Renewable Energy – MEER
	Ministry of Public Health – MSP
	Ministry of Transport and Public Works - MTOP
	Ministry of Tourism – MINTUR
	Ministry of Education
Coordinating Ministries	Coordinating Ministry of Social Development – MCDS
	Coordinating Ministry of Natural and Cultural Heritage – MCPNC
	Coordinating Ministry of Strategic Sectors – MCSE
	Coordinating Ministry of Policy and Decentralized Autonomous Governments – MCPGAD
	Coordinating Ministry of Production, Employment and Competitiveness – MCPEC
Other Government Entities	National Institute for Farming Investigation – INIAP
	National Institute for Meteorology and Hydrology - INAMHI
	Decentralized Autonomous Governments – GADs
	National Fishing Institute – INP
	Izquieta Pérez Institute
	Ecuadorian Social Security Institute – IESS

Civil Society Organizations	Private Sector
	Universities
	Investigations Institutions
	Citizens

Once again, the ENCC places the state and its institutions at the centre of the development and implementation of climate change and environmental governance policies. The chain of command is clear within the following quote that indicates the flow from a central state authority to a local government that must comply with a national development plan. Local Indigenous communities are expected to insert themselves into the local government process, as well as national policies and programs that are directly implemented in their territory.

> "National public policies are defined by the Executive branch of government. Ministries and Secretariats of the state formulate and execute policies that correspond to their sector, strictly subject to the objectives and goals of the PNBV (*Plan Nacional del Buen vivir*). Meanwhile, the GADs develop and execute local policies in their 'field of competition', which must be part of their Development and Territorial Organization Plans (PDOT), subject to the provisions of the PNBV and in compliance with national public policies" (ENCC, 72)
>
> *"la definición de la política pública nacional la ejerce la Función Ejecutiva. Los Ministerios y Secretarías de Estado formulan y ejecutan las Políticas que correspondan a su sector, sujetas estrictamente a los objetivos y metas del PNBV. Mientras tanto, los GADs desarrollan y ejecutan las políticas locales en el ámbito de sus competencias, las que deben estar contenidas en sus Planes de Desarrollo y Ordenamiento Territorial, con sujeción a lo establecido en el PNBV y en cumplimiento de las Políticas Públicas Nacionales"*

The inter and intra institutional framework for environmental governance is also bound by national and local territorial organization and development plans. The Guidelines for Development Planning and Territorial Organization from SENPLADES establishes that "national planning is the exclusive competition of the central government and the development planning and territorial organization at the regional, provincial, county and parish is exclusive competence of the GADs". The national planning is carried out through national development plans, and civil society participation, specifically that of rural, Indigenous communities, is limited to local planning through GADs. However, during various interviews with government officials, *Socio Bosque* was touted as a program that can, and does, provide a platform for Indigenous inclusion and participation in national and international debates surrounding environmental governance and possible climate change adaptation and mitigation solutions. One *Socio Bosque* official stated that

> "*Socio Bosque* is an engine for the same people in the community to be active actors in the environmental conservation debate. Currently, they [communities] are not conservation actors... NGOs, the State...they are actors but communities are not. Fifty thousand families in *Socio Bosque* is an opportunity for these people to be at the forefront of the conservation debate."
>
> *"Socio Bosque es un motor para que la misma gente de la comunididad sean actores activos en el debate de la conservación ambiental. No son actores de conservación…las ONGs, el Estado…..si son [actores] pero las comunidades no. Cincuenta mil familias en Socio Bosque es una oportunidad para que estas personas se pongan al frente del debate sobre la conservación."*

Another *Socio Bosque* official noted that participants in the program have formed national and regional network of *Socio Bosque* partners. Through this network, the *socios* (partners) were able to participate in the new national environmental conservation effort, *REverdecer Ecuador* (Re-green Ecuador). So, it would seem that, on the surface, *Socio Bosque* has provided various community members and leaders with the opportunity to engage in meaningful dialogue with state institutions and international environmental conservation and governance efforts. Various studies (see Perafán et al., 2019; Arriagada et al., 2018) argue that *Socio Bosque* has strengthened local organization, but the program's ability to provide a larger platform where Indigenous voices and opinions on the program are given equal footing to state-led discourse is less apparent.

While MAE does advocate for participation by local communities, this participation is limited to a framework outlined by MAE and analyzed in this chapter. Very little space is given to opposing voices or questions that seek to improve the program from a local perspective. Some evidence suggests that some communities, and specific individuals of influence within these communities, are strategically using *Socio Bosque* as a means of exercising political and social agency within their community and even at a national level. Feedback learning loops in the form of workshops and seminars are implemented, but from various communities' perspectives, these practices are top-down, state-led strategies that are inherently exclusive and provide opportunities for political "ventriloquists" – a social and political intermediary (Guerrero, 1997). The ventriloquist knows the "semantic field that has to be put into the mouth of the Indians…[and] who knows the content, the range and the tone" of what the state understands (Guerrero, 1997: 590). The ventriloquist does not only translate or transcribe, but "performs a trans-scriptural act: he pursues a strategy of representation" (Guerrero, 1997: 590).

Therefore, Indigenous participation in the institutional and bureaucratic maze created by *Socio Bosque* is often times done by means of "political ventriloquism" and not by the larger community.

As a result, an institutionalized *Socio Bosque* in the socio-historical context of Chimborazo makes Indigenous communities passive recipients of government handouts, while hand-picked representatives, usually mestizos or indigenous political and economic elite, speak on behalf of Indigenous community values, desires, and customs. This type of "Indigenous" representation is the historical norm within Chimborazo dating back to the times of the hacienda where landowners would speak on behalf of Indigenous populations and after agrarian reform, when Indigenous political and economic elite speak on behalf of communities with which they have little to no contact. Therefore, when examining state-led environmental governance strategies and policies in Indigenous communities, it is impossible to disarticulate these policies from the local social, political, and economic reality rooted in complex power structures based on historical institutions.

A common critique of *Socio Bosque* is that it fails to address these unequal power relations and structures that underlie the relationship between *Kichwa* Indigenous communities and the Ecuadorian state. Instead of providing a platform for expressing local or alternative ideas for environmental conservation, *Socio Bosque* has institutionalized Indigenous communities as subjects whose ability to conform to the structures of the program facilitates the payment for ecosystem services and whose voice and representation is limited to that of political "ventriloquists" who neither fully understand local desire or operate without self-serving interests.

5.8 Indigenous Participation through Conceptual Appropriation

Of constant debate within PES programs is the ability of such programs to incorporate Indigenous *cosmovision*es into their larger aspirational and technological goals of combating climate change (Abate and Warner, 2013; Berkes, 2018; Smith et al, 2019). As a result, many Indigenous peoples, both inside and outside of Ecuador, oppose REDD+ and PES endeavours that assign a market-based value to nature and undermine Indigenous values of reciprocity, respect, relationality, and reverence towards *Pachamama*. For Ecuador, the incorporation of Indigenous concepts into its development discourse and

practice has been a key element of including Indigenous *cosmovision*es into larger social and political spheres. This chapter and Chapter 2 explore the discourse evoked by the state to describe *Socio Bosque* as an integral program to achieve *buen vivir* and *sumak kawsay*, as well as to protect the rights of nature. However, the very inclusion of *sumak kawsay* into state-led political and social discourse is seen with skepticism by many community members that were interviewed. One *tayta* interviewed claimed that "the outgoing mayor had a slogan, 'Building *Sumak Kawsay'*. In practice, nothing has been seen in any community during the four years". This quote suggests that in many ways the state uses Indigenous concepts to legitimize policies and programs that, without the inclusion of Indigenous discourse, seemingly run counter to Indigenous *cosmovision*es.

By using *Kichwa* words and concepts, such as *sumak kawsay* and *Pachamama*, state institutions are portraying *Socio Bosque* as a national project that aligns with Indigenous *cosmovision*es about land, place, nature, and livelihoods. In many of my interactions with various government representatives during field research, there was a genuine concern and respect for Indigenous communities and their *cosmovision*es. In various interviews, *Socio Bosque* and MAE bureaucrats recognized the internal debate surrounding the incorporation of Indigenous ways of living and knowing within state institutions. However, the institutional framework that prioritizes national and international climate change goals over local community initiatives imposed by PES programs seemed to fence these government representatives into a position in which they themselves recognized the balancing act of obtaining results for a national and global climate change framework while, at the same time, honouring and incorporating indigenous *cosmovision*es and traditional land use practices into local environmental governance. The balancing of achieving national and international climate change goals and respecting Indigenous *cosmovision*es within an Ecuadorian economy that relies heavily on resource extraction is complex. As one high ranking MAE official stated, "The Vice President said to the MAE Minister that *Socio Bosque* is a problem for the state". This same official continued by saying,

> "We must accompany these communities and their *cosmovision*es, but…there are political games in that too. In 2016/17 *Socio Bosque* became a hindrance to the oil industry because it forced them [the state and the oil industry] to enter into discussions with the communities. The transnationals were worried because they saw *Socio Bosque* as an organizational strengthening of the communities."

> *"Debemos acompañar a estas comunidades y sus cosmovisiones pero…hay juegos políticos en eso también. En 2016/17 el Socio Bosque se convertio en un estorbo para el petróleo porque las comunidades a pesar de los conflictos les obligaba discutir con las comunidades. Les preocupaba a los transnacionales porque el Socio Bosque lo veian como un fortalecimiento organizativo de las comunidades."*

This line of thinking represents the various state bureaucrats who realize the incorporation of Indigenous concepts and *cosmovision*es into the discussion on environmental governance is key, but that political economy of Ecuador make this incorporation extremely difficult and complex. Therefore, while Indigenous communities are invited to participate in discussions surrounding the incorporation of their concepts and *cosmovision*es into state-led programs and policies, they continue to be limited to the margins of change and, often times, programs meant to assist these communities are seen as a hinderance to the larger state and society development through national projects like mining and oil extraction. For example, in its National Mining Plan, the government of Ecuador sees mining as part of its "strategic sectors and [a] priority for the National Government...public policies are proposed to accelerate the development of the mining sector in favor of national interests" (*sectores estratégicos, y por consiguiente es de prioridad para el Gobierno Nacional…se plantean políticas públicas que aceleren su desarrollo en favor de los intereses nacional*) (National Mining Plan, 2016). Similarly, a *Socio Bosque* "Frequent Questions" brochure states that resource extraction is "outside the competence of the *Socio Bosque* Program. The Program will be subject to the actions considered strategic by the National Government and its National Plan for Good Living" (*Socio Bosque*, 2019).

In other words, a mining or oil project that is deemed of national interest supersedes land conserved through programs like *Socio Bosque*. Finally, in 2012 Max Lascano, the original director of *Socio Bosque*, stated that oil and mining are "strategic resources of the state and whether there can be exploitation in areas of *Socio Bosque*, that is in the Constitution, and this program is not above the Constitution" (Johnson, 2012: 19). The prioritization of resource extraction over conservation is clear, and it would seem to be in opposition to the rights of nature. As a result, many scholars were quick to point out the existing gap between the theoretical rights of nature expressed in the constitution and the expansion of resource extraction policies and activities for economic and social development in Ecuador (Kauffmann and Martin, 2016; Johnson, 2017; Morley, 2017).

For communities participating in *Socio Bosque*, this dichotomy creates a possible conflict where resource extraction is taking place. Community 2 has their upper *páramo* land as part of *Socio Bosque*, while land found in the lower *páramo* is being mined by Chimborazo Cement. The community recognized the negative impacts of mining, such as water contamination, but also understood the economic impacts of mining, such as job creation, although in the case of Community 2 community members stated that jobs for the community are minimal. These conflicting state priorities create a complex duality within various communities – resource extraction and environmental conservation. Unfortunately, funds from PES programs cannot replace jobs from resource extraction, although PES programs distribute funds equally among community members, unlike jobs within mining, for example. As a result, distribution of PES funds becomes a key issue in the long-term sustainability of a program and also greatly affects community inclusion and participation.

5.9 National Development, REDD+ and Reforestation Plans

Since 2007, the first year of the government of Rafael Correa's *Alianza PAIS*, Ecuador has developed four different national development plans. As mentioned above, these plans form the framework that directs government policies, and it is important to understand the environmental discourse used throughout these plans. By tracing the appearance and subsequent disappearance of certain concepts and words, the discursive framework that guides policies and programs set out by the state can be analyzed. The table below outlines the use of six key words or phrases, as well as "participation" or "participatory", in the national development plans from 2007, the first plan developed by the Correa administration, to 2017, the latest plan developed by Correa's successor, Lenin Moreno. I have also included the national REDD+ action plan for comparison.

Table 8: Environmental and Development Discourse in National Development Plans

	Sumak kawsay	*Buen vivir*	*Pacha mama*	*Medio ambiente* (Environment)	*Servicios ambientales* (Environmental services)	*Derechos de la naturaleza* (Rights of nature)	Participation or Participatory
Plan Nacional de Desarrollo 2007 (PND)	0	3	0	19	0	0	299 67
Plan Nacional para el *Buen vivir* (PNBV) 2009 – 2013	5	426	1	9	6	49	206 62

Plan Nacional para el *Buen vivir* (PNBV) 2013 – 2017	22	266	1	16	17	45	318 70
Plan Nacional de Desarrollo (PND) 2017 - 2021	0	41	0	5	5	18	107 32
REDD+ Bosques para el *Buen vivir*		33	1	3	36	9	88 17

Plan Nacional de Desarrollo 2007 (458 pages); Plan Nacional para el *Buen vivir* 2009 – 2013 (520 pages); Plan Nacional para el *Buen vivir* 2013 – 2017 (602 pages); Plan Nacional de Desarrollo 2017 – 2021 (148 pages)

As the table above records, during the early years of the *Revolución Ciudadana* of the governing *Alianza PAIS* party, the national development plan did not contain many references to the six words or phrases outlined (*sumak kawsay, buen vivir, Pachamama, medio ambiente* (environment), *servicios ambientales* (Environmental services), and *derechos de la naturaleza* (rights of nature) and participation (participatory). While *buen vivir* was mentioned in the 2007 PND (Plan Nacional de Desarrollo), it was used in combination with a general definition of development that is the "consequence of the *buen vivir* of everyone, in peace and harmony with nature and the indefinite extension of human cultures" (*entendemos por desarrollo la consecución del buen vivir de todos y todas, en paz y armonía con la naturaleza y la prolongación indefinida de las culturas humanas*) (54). It is interesting to note that the 2007 plan mentions the word environment most frequently out of all the plans. For the most part, the term is used in conjunction with the sustainable use of natural resources and water sources and to achieve national objectives for human development, as seen in Objective 4: To promote a clean and sustainable environment and to guarantee access to water, soil and air (*Promover un medio ambiente sano y sostenible, y garantizar el acceso a agua, suelo y aire Seguro)* (56). However, the plan prioritizes negotiations between the Ecuadorian state and international institutions in dealing with climate change. According to the PND, compensation by industrialized countries through international climate change and environmental conservation agreements needs to be established through "global mechanisms to pay the ecological debt and to increase a global environmental vision…based on regional and global agreements" (*mecanismos globales para el pago de la deuda ecológica y el fomento de una visión responsable de alcance mundial…con base en convenios y acuerdos regionales y mundiales*) (61). Clearly, the Ecuadorian state viewed the country's participation in international climate change negotiations and frameworks, or norms and practices as outlined in international agreements, as paramount in combating climate change but also as a means of economic compensation to less-developed countries like Ecuador. Nevertheless, the plan also states that new institutions are needed to protect traditional knowledge of Indigenous communities, as well as implementing "control instruments" to

assist communities most affected by deforestation and climate change and to assist these communities in conserving ecosystems and reducing negative environmental impacts (65). While the plan does not directly mention the rights of nature, it does discuss the need to "live in harmony with nature" and states that nature provides "fundamental services" that "constitute irreplaceable conditions and whose preservation is of infinite value", hinting at the early need for assigning some sort of economic value to these services (51).

A dramatic change within state discourse surrounding development and environmental governance can be seen in the 2009 PNBV when a clear emphasis is placed on the term *buen vivir*. One explanation for the increased use of the term could be that the country's new Constitution was finalized in 2008 and, as a result, the emphasis placed on *buen vivir* in the Constitution now needed to be institutionalized at the state level. In the new Constitution, the concept of *buen vivir* was at the forefront of defining national development and the subsequent national plan contains a clear discourse surrounding *buen vivir*. In the Constitution and the 2009 PNBV *buen vivir* is clearly linked to the rights of nature, a concept which also begins to gain further inclusion in the 2009 plan. *Buen vivir* and rights of nature become linked to environmental conservation under the 2009 plan's National Objectives for *Buen vivir*, Objective 4: To guarantee the rights of nature and to promote a clean and sustainable environment (*Garantizar los derechos de la naturaleza y promover un ambiente sano y sustentable*). The plan seeks to achieve this objective by redefining

> "relations between people, communities, and nationalities, on the one hand, and their relationship with the environment…[and] to rethink the respective situation between people and their environment and the cosmos. In this way, human beings are in a position to rediscover their close relationship with *Pachamama*, and make *buen vivir* a practical exercise in the sustainability of life and life cycles." (217).
>
> *"relaciones entre personas, comunidades, pueblos y nacionalidades, por un lado, y su relación con el ambiente, por otra…[y] a repensar la situación de las personas respecto de su entorno y del cosmos. De este modo, los seres humanos están en condiciones de redescubrir su relación estrecha con la Pachamama, y hacer del Buen Vivir un ejercicio práctico de sostenibilidad de la vida y de los ciclos vitales."*

Institutional change through adaptation and mitigation, founded on the new constitutional framework, is seen as a necessary means to rethink and to redefine the current logic of seeing natural ecosystems beyond simply "resources to exploit" (217). According to the plan,

> "environmental institutionality in Ecuador has been marked by centralized and vertical relationship of the state with citizens. By not conceiving that issues such as health, education, territorial planning, energy, roads, risk management, urban planning or production, could contain an environmental axis, all the institutions of the central state, local governments and the private arena have maintained disjointed spaces with each other…the powers of the national environmental authority have been involved in constant disputes with other public instances of the same level. The dispersion of competencies and the lack of planning, communication and inter-institutional agreements have resulted in slow handling" (231).
>
> *"La institucionalidad ambiental en el Ecuador ha estado marcada por fuerte carga de centralismo y relación vertical del Estado con la ciudadanía. Al no concebir que temas como salud, educación, ordenamiento territorial, energía, vialidad, gestión de riesgos, urbanismo o producción, podrían contener un eje ambiental, todas las instituciones del Estado central, de los gobiernos locales y el ámbito privado, han mantenido espacios desarticulados entre si, que han venido tratando de manera apenas complementaria o por cumplir con los requisitos, los aspectos ambientales en cada uno de sus espacios. La institucionalidad y, por ende, las competencias de la autoridad ambiental nacional se han visto involucradas en constantes disputas con otras instancias públicas de su mismo nivel. La dispersión de competencias y la falta de planificación, comunicación y acuerdos interinstitucionales han resultado en un manejo lento"*

The institutional change, according to the plan, also requires an "effective de-concentration in territories, and to articulate it [de-concentration] to the management of the new state structure" (*desconcentración efectiva en los territorios, y articularla a la gestión de la nueva estructura estatal*) (217). It must be noted that *Socio Bosque* began one year prior to the 2009 national development plan but the program's national implementation began in 2009 as a clear policy linked to *buen vivir*.

While only mentioned six times in the 2009 plan, environmental services are clearly defined in the document as "a set of fundamental services for life: temperature, rain, atmospheric composition, etc., which constitute irreplaceable conditions and whose preservation has infinite value" (*un conjunto de servicios fundamentales para la vida: la temperatura la lluvia, la composición atmosférica, etc., que constituyen condiciones insustituibles y cuya preservación tiene un valor infinito*) (39). Furthermore, the plan states that plans and programs that boost the sustainable use of natural resources through the generation of ecosystem services must be developed and implemented (234). According to the 2009 PNBV, these programs and policies are particularly important to achieve *buen vivir* in the rural areas and ecosystem services are seen as local, economic alternatives to traditional agricultural practices that conserve the environment, generate income, and preserve rural cultures (128). It is important to note that within

the framework of planning and prioritizing public investment (Section 9), the plan identifies ecosystem services as a key investment category that will help to create the accumulation of capital of productive sectors, specifically by promoting "nascent industries that assist or promote" ecosystem services (406). Furthermore, the plan names ecosystem services as an industry in and of itself by placing it in a list with other underdeveloped industries, such as the petrochemical, bioenergy and biofuels, metalworking, biomedicine, pharmaceutical, biochemistry, and hardware and software industries, that will be important for the country's "import substitution" (96). Clearly, the 2009 PNBV links environmental services to a larger market-based productive system of capital accumulation. In contrast, the 2009 PNBV reiterates Article 74 of the Constitution by stating that ecosystem services are not susceptible to appropriation. However, by their very nature, PES programs require a certain level of ecosystem appropriation and privatization in order to function.

The 2009 plan does take a more enviro-centric focus in the various policies that need to be implemented to achieve *buen vivir*. While these mandates are somewhat vague and open to interpretation, the 2009 PNBV suggests a discursive turn in the Ecuadorian state by placing the environment within central discussions surrounding the economic, political, and social well-being of the country and its citizens. For example, the table below outlines some policies, specific mandates and goals contained within the PNBV to achieve Objective 4, specifically those which relate to environmental conservation and governance.

Table 9: Environmental Governance and the PNBV

Objective 4: **To guarantee the rights of nature and promote a healthy and sustainable environment** ***Garantizar los derechos de la naturaleza y promover un ambiente sano y sustentable***	
Policy	**Specific Mandates**
Policy 4.5 - To foster adaptation and mitigation to climate variability with emphasis on the climate change process *Fomentar la adaptación y mitigación a la variabilidad climática con énfasis en el proceso de cambio climático*	a) Generate programs of adaptation and response to climate change that promote inter-institutional coordination, and the socialization of their actions among the different key actors, with particular attention to fragile ecosystems such as *páramo*s, mangroves and wetlands. *Generar programas de adaptación y respuesta al cambio climático que promuevan la coordinación interinstitucional, y la socialización de sus*

	acciones entre los diferentes actores clave, con particular atención a ecosistemas frágiles como páramos, manglares y humedales.
	c) Promote adaptation programs to climatic alterations, with emphasis on those linked to energy and food sovereignty. *Impulsar programas de adaptación a las alteraciones climáticas, con énfasis en aquellos vinculadas con la soberanía energética y alimentaria.*
	d) Assess the impact of climate change on the goods and services provided by different ecosystems, in a different state of conservation. *Valorar el impacto del cambio climático sobre los bienes y servicios que proporcionan los distintos ecosistemas, en diferente estado de conservación.*
	e) Incorporate climate change as a variable to consider in projects and in the evaluation of environmental impacts, considering the opportunities offered by new mitigation schemes *Incorporar el cambio climático como variable a considerar en los proyectos y en la evaluación de impactos ambientales, considerando las oportunidades que ofrecen los nuevos esquemas de mitigación.*
	f) Develop activities aimed at increasing public awareness and participation, with an emphasis on women in all activities related to climate change and its implications in people's lives. *Desarrollar actividades dirigidas a aumentar la concienciación y participación ciudadana, con énfasis en las mujeres diversas, en todas las actividades relacionadas con el cambio climático y sus implicaciones en la vida de las personas.*
	g) Encourage compliance with commitments by industrialized countries on technology transfer and financial resources as compensation for the negative effects of climate change in non-industrialized countries *Incentivar el cumplimiento de los compromisos por parte de los países industrializados sobre transferencia de tecnología y recursos financieros como compensación a los efectos negativos del cambio de clima en los países no industrializados.*
Policy 4.7 - Incorporate the environmental approach into social, economic and cultural processes within public management. *Incorporar el enfoque ambiental en los procesos sociales, económicos y culturales dentro de la gestión pública.*	f) Develop plans and programs that promote the sustainable use of natural heritage and the generation of bio-knowledge and environmental services. *Desarrollar planes y programas que impulsen el uso sostenible del patrimonio natural y la generación de bioconocimiento y servicios ambientales.*
Policy 11.11 - Promote the ecosystem sustainability of the economy through the implementation of clean production technologies and practices.	d) Expand the system of national accounts to record the loss and degradation of natural resources and the contribution of environmental services. *Ampliar el sistema de cuentas nacionales para registrar la pérdida y degradación de los recursos naturales y el aporte de los servicios ambientales.*

Promover la sostenibilidad ecosistémica de la economía a través la implementación de tecnologías y prácticas de producción limpia	
Goals	
4.1.1.	Increase the area of territory under conservation or environmental management by 5 percentage points until 2013. *Incrementar en 5 puntos porcentuales el área de territorio bajo conservación o manejo ambiental hasta el 2013.*
4.1.2.	Reduce the deforestation rate by 30% by 2013. *Incluir 2.521 km2 de superficie marinocostera y continental bajo conservación o manejo ambiental hasta el 2013.*
4.3.2.	Reduce the ecological footprint so that it does not exceed the biocapacity of Ecuador until 2013. *Disminuir la huella ecológica de tal manera que no sobrepase la biocapacidad del Ecuador hasta el 2013.*
4.5.1.	Reduce to 23% the high threat level of the vulnerability index of ecosystems to climate change, and to 69% the average threat level by 2013. *Reducir al 23% el nivel de amenaza alto del índice de vulnerabilidad de ecosistemas a cambio climático, y al 69% el nivel de amenaza medio hasta el 2013.*

The goals outlined in the table above indicate an attempt by the Ecuadorian state to quantify and measure the country's success in combating climate change which, in turn, could be leveraged at the international level with organizations such as the UNDP, REDD+ and GEF (Global Environmental Fund), in the hopes of securing multilateral and bilateral financial support.

The concept of *buen vivir*, at least in the political discourse of the reigning *Alianza PAIS* party and government institutions, began to see its decline in the 2013 PNBV. The phrase is mentioned much less than in the 2009 plan, but a slight increase in the Indigenous term, *sumak kawsay*, can be seen. In contrast to the 2009 plan, environmental services are discussed more prominently in the 2013 plan. While policies are not specific, environmental services are portrayed as a good to be promoted and commercialized in the international market, much like other priority sectors, such as tourism, transport, and logistics (347). More specifically, this promotion and commercialization is to take place within a "sovereign and strategic commercial policy articulated to the economic and social development of the country (*una política comercial estratégica y soberana, articulada al desarrollo económico y social del país)* (346). The table below outlines the various policies and mandates involving ecosystems services and/or climate change adaptation and mitigation found in the 2013 PNBV.

Table 10: Ecosystem Services and Climate Change Adaptation and Mitigation in the PNBV

2013 – 2017 PNBV	
Objective 7: Guarantee rights of nature and promote global and territorial environmental sustainability ***Garantizar los derechos de la naturaleza y promover la sostenibilidad ambiental territorial y global***	
Policy	**Specific Mandates**
7.2 **-** Know, value, conserve and sustainably manage natural heritage and its terrestrial, continental, marine and coastal biodiversity, with fair and equitable access to its benefits *Conocer, valorar, conservar y manejar sustentablemente el patrimonio natural y su biodiversidad terrestre, acuática continental, marina y costera, con el acceso justo y equitativo a sus beneficios*	a) Strengthen the National System of Protected Areas, and other forms of conservation based on comprehensive and participatory management, and territorial security of terrestrial, aquatic and marine landscapes, so that they contribute to the maintenance of its structure, functions, and natural and evolutionary cycles, ensuring the flow and provision of environmental services. *Fortalecer el Sistema Nacional de Áreas Protegidas, y otras formas de conservación basadas en la gestión integral y participativa, y la seguridad territorial de los paisajes terrestres, acuáticos y marinos, para que contribuyan al mantenimiento de su estructura, funciones, ciclos naturales y evolutivos, asegurando el flujo y la provisión de servicios ambientales.*
	j) Promote incentives and appropriate technology for the conservation of nature, its forests, water sources and other fragile ecosystems, focusing particularly on communities and individuals more dependent on nature for survival. *Impulsar incentivos y tecnología apropiada para la conservación de la naturaleza, sus bosques, zonas de nacimiento y recarga de agua y otros ecosistemas frágiles, enfocados en particular en las comunidades y los individuos más dependientes del patrimonio natural para su sobrevivencia.*
7.10 - Implement climate change mitigation and adaptation measures to reduce economic and environmental vulnerability with emphasis on groups of priority attention *Implementar medidas de mitigación y adaptación al cambio climático para reducir la vulnerabilidad económica y ambiental con énfasis en grupos de atención prioritaria*	b) Implement climate change prevention, mitigation and adaptation programs, such as evaluation, vulnerability and risk impact in the territories of different productive sectors and human settlements with emphasis on prioritized sectors, groups of priority care and fragile ecosystems. *Implementar programas de prevención, mitigación y adaptación al cambio climático, así como de evaluación de impacto, vulnerabilidad y riesgo en el territorio para los diferentes sectores productivos y asentamientos humanos, con énfasis en los sectores priorizados, los grupos de atención prioritaria y los ecosistemas frágiles.*
	c) Minimize the impact of climate change on the natural heritage, the operation of life cycles and the supply of goods and services the various ecosystems provide. *Minimizar el impacto del cambio climático en el patrimonio natural, el funcionamiento de los ciclos vitales y la oferta de bienes y servicios que proporcionan los diversos ecosistemas.*
Objective 10: Promote the transformation of the productive matrix ***Impulsar la transformación de la matriz productiva***	

10.3 - Diversify and generate greater added value in the priority sectors that provide services *Diversificar y generar mayor valor agregado en los sectores prioritarios que proveen servicios*	d) Promote spaces for the development of environmental services activities under competitiveness and productivity schemes in its provision for the generation of greater added value. *Promover espacios de desarrollo de las actividades de servicios ambientales, bajo esquemas de competitividad y productividad en su prestación, para la generación de mayor valor agregado.*
Objective 12: Guarantee sovereignty and peace, deepen strategic insertion in the world and Latin American integration ***Garantizar la soberanía y la paz, profundizar la inserción estratégica en el mundo y la integración latinoamericana***	
Policy	**Specific Mandates**
12.3 - Deepen a strategic and sovereign commercial policy, articulated to the economic and social development of the country *Profundizar una política comercial estratégica y soberana, articulada al desarrollo económico y social del país*	e) Promote the offer of Ecuadorian services internationally, emphasizing priority sectors such as tourism, transport and logistics, environmental services and software. *Promocionar a nivel internacional la oferta de servicios ecuatorianos dando énfasis a los sectores priorizados como el turismo, transporte y logística, servicios ambientales y software.*

A unique aspect of the 2013 Plan is the division of the country into seven "zones" comprised of several provinces to prioritize specific development initiatives. The division of the country into specific zones was organized by SENPLADES to improve the quality and efficiency of centralized state services and planning (SENPLADES, 2019). For Zone 3 – Pastaza, Tungurahua, Cotopaxi and Chimborazo, environmental services are not mentioned as a priority as in other Zones, specifically that of the province of Pichincha where the capital, Quito, is located. However, under "Patrimonial Sustainability", a priority for the zone including Chimborazo, are various mandates to implement programs and policies that protect and recuperate the *páramo* ecosystem.

A dramatic change can be seen in Ecuador's most recent national development plan from 2017 – 2021. This plan began after Rafael Correa handed over power to his successor and previous Vice-President, Lenin Moreno. However, Moreno shifted government policy, significantly reducing spending, closing various government institutions, and opening Ecuador up to increased foreign investment and global finance (Carvajal and Angulo, 2017; Valencia, 2019). As is evident, the 2017 plan's discursive focus shifts from and emphasis on the words and phrases presented in Table 5. *Buen vivir* is mentioned in passing compared to the two previous plans and references to the rights of nature have also been reduced. In dealing with ecosystem services, the 2018 plan places them under

Objective 6: Develop productive and environmental capacities to achieve food sovereignty and rural *buen vivir* (84). The 2017 Plan does not provide specific mandates for each policy but does provide measurable goals to be achieved. Of note is that many of the goals that are attached to the policies outlined below are not clearly linked to a specific policy. It is unclear exactly how any of the stated goals will help to achieve Policy 6.7, specifically the sustainable management of natural resources and environmental services. The focus of the goals is on education, poverty alleviation, and basic services, such as healthcare, water and sanitation. Furthermore, it suggests that the Ecuadorian state prioritizes clear, measurable goals to demonstrate achievement of policies and programs.

Table 11: Rights of Nature and Environmental Governance in 2017-2021 PND

2017 – 2021 PND	
Objective 3: Guarantee the rights of the nature for current and future generations ***Garantizar los derechos de la naturaleza para las actuales y futuras generaciones***	
Policy	**Specific Goals to achieve Objective 3**
3.1 Conserve, recover and regulate the use of natural and social, rural and urban, continental, insular and marine-coastal heritage to ensure and protect the rights of present and future generations. *Conservar, recuperar y regular el aprovechamiento del patrimonio natural y social, rural y urbano, continental, insular y marino-costero, que asegure y precautele los derechos de las presentes y futuras generaciones.*	• Prevent the gap between Ecological Footprint and Biocapacity to be less than 0.35 global hectares per capita by 2021. (*Evitar que la brecha entre Huella Ecológica y Biocapacidad sea menor a 0,35 hectáreas globales per cápita hasta 2021).* • Keep 16% of national territory under conservation or environmental management by 2021. (*Mantener el 16% de territorio nacional bajo conservación o manejo ambiental a 2021*). • Increase proper disposal of non-hazardous solid was from 70.3% to 80% by 2021. (*Incrementar del 70,3% al 80% los residuos sólidos no peligrosos con disposición final adecuada a 2021*). • Reduce gross deforestation to 15% compared to reference level of forest emissions by 2021. (*Reducir al 15% la deforestación bruta con respecto al nivel de referencia de emisiones forestales a 2021*). • Increase solid waste from 17% to 35% recycled in relation to the total waste generated by 2021. (*Incrementar del 17% al 35% los residuos sólidos reciclados en relación al total de residuos generados, hasta 2021*). • Reduce and remedy the sources of contamination of the hydrocarbon industry, with the endorsement of the environmental authority by 2021. (*Reducir y remediar las fuentes de contaminación de la industria hidrocarburífera, con aval de la autoridad ambiental a 2021*). • Reduce the expansion of the urban and agricultural frontier by 2021. (*Reducir la expansión de la frontera urbana y agrícola a 2021*). • Reduce and remedy pollution from water sources by 2021. (*Reducir y remediar la contaminación de fuentes hídricas a 2021*).
3.2 Equally distribute access to natural heritage, as well as the benefits and wealth obtained by its leveraging, and promote the sustainable governance of renewable and non-renewable natural resources.	
3.3 Prioritize the care of natural heritage and human life over the use and	

exploitation of natural, non-renewable resource.	• Increase the percentage of wastewater with proper treatment by 2021. (*Incrementar el porcentaje de aguas residuales con tratamiento adecuado a 2021*).
3.4 Promote good practices that contribute to the reduction of pollution and the conservation, mitigation and adaptation of the effects of climate change, and boost the same in the global sphere. *Promover buenas prácticas que aporten a la reducción de la contaminación, la conservación, la mitigación y la adaptación a los efectos del cambio climático, e impulsar las mismas en el ámbito global.*	• Increase the number of municipalities that purify the water discharges before releasing them into the environment by 2021. (*Incrementar el número de municipios que depuran las descargas de agua antes de verterlas al ambiente, a 2021*). . • Reduce the climate change Vulnerability Index of the populations, livelihoods and ecosystems from high to medium by 2021. (*Reducir el Índice de Vulnerabilidad de alta a media, de la población, medios de vida y ecosistemas, frente al cambio climático, a 2021*). • Increase the utility of machinery, equipment and productive technologies considering criteria of programmatic obsolescence by 2021. (*Incrementar la utilidad de las maquinarias, equipos y tecnologías productivas considerando criterios de obsolescencia programática a 2021*).
Objective 6: Develop productive and environmental abilities to achieve the food sovereignty and rural *Buen vivir* ***Desarrollar las capacidades productivas y del entorno para lograr la soberanía alimentaria y el Buen Vivir Rural***	
Policy	**Specific Goals (Not all goals are listed)**
6.7 - Ensure plural participation with a gender approach and emphasis on village organizations, nationalities, communes, communities and groups in the sustainable management of natural resources and environmental services. *Garantizar la participación plural, con enfoque de género y énfasis en las organizaciones de pueblos, nacionalidades, comunas, comunidades y colectivos, en el manejo sostenible de los recursos naturales y servicios ambientales.*	• Reduce the incidence of rural income poverty from 38.2% to 31.9% by 2021. (*Reducir la incidencia de la pobreza por ingresos rural del 38,2% al 31,9% a 2021*). • Increase the appropriate employment rate in the rural area from 27.8% to 35.2% by 2021. (*Incrementar la tasa de empleo adecuado en el área rural del 27,8% al 35,2% a 2021*). • Reduce the multidimensional poverty rate from 59.9% to 49.2% in rural areas by 2021. (*Reducir del 59,9% al 49,2% la tasa de pobreza multidimensional en el área rural a 2021*). • Increase access to irrigation from 760 473 ha. to 826 695 has. by 2021. (*Incrementar el acceso a riego de 760 473 ha. a 826 695 ha. a 2021).* • Increase from 86.44% to 86.87% the participation of food produced in the country in the consumption of Ecuadorian households by 2021. (*Incrementar del 86,44% al 86,87% la participación de los alimentos producidos en el país en el consumo de los hogares ecuatorianos a 2021*). • Increase coverage, quality, and access to services education, with cultural and territorial relevance, in rural areas: increased from 64.47% to 75% the net rate of Adjusted high school attendance in the rural area to 2021. (*Aumentar la cobertura, calidad, y acceso a servicios de educación, con pertinencia cultural y territorial, en zonas rurales: incrementar del 95,28% al 96,4% la tasa neta de asistencia ajustada a Educación General Básica en el área rural a 2021*).

	• Increase the percentage of households in rural areas that have safe water and adequate sanitation: increase the percentage of households that have an installation for washing hands with soap and water by 2021. (*Incrementar el porcentaje de hogares en el área rural que cuentan con agua segura y saneamiento adecuado: incrementar el porcentaje de hogares que dispone de una instalación para lavarse las manos con agua y jabón a 2021*). • Increase the percentage of households in the rural area that have safe water and adequate sanitation: increase the percentage of households that use basic sanitation services by 2021. (*Incrementar el porcentaje de hogares en el área rural que cuentan con agua segura y saneamiento adecuado: incrementar el porcentaje de hogares que usa servicios de saneamiento básico a 2021*). • Reduce the concentration of land by 2021. **(***Reducir la concentración de la tierra a 2021).* • Increase land titling by 2021. (*Aumentar la titularización de tierras a 2021*).

All of the Specific Goals for Policy 6.7 are not listed. Only a select number of the 18 total number of goals are listed.

The institutionalization of Indigenous concepts into the Ecuadorian state has been a long complicated process and, while it is clear that the inclusion of *sumak kawsay/buen vivir* and the rights of nature into the Constitution provided a guiding framework for environmental governance in the country, the normative practices and policies that were to be implemented as a result are not as clear. However, the shift provided by Correa's government in 2006 paved the way for environmental governance projects to be explored and implemented as national programs. The following section provides a historical analysis of the *Socio Bosque* program from early, highly localized PES projects sponsored by international conservation organizations, such as Conservation International, to a national scale PES program that has incorporated diverse ecosystems of the entire country and the financial backing and support of foreign governments and international funding agencies.

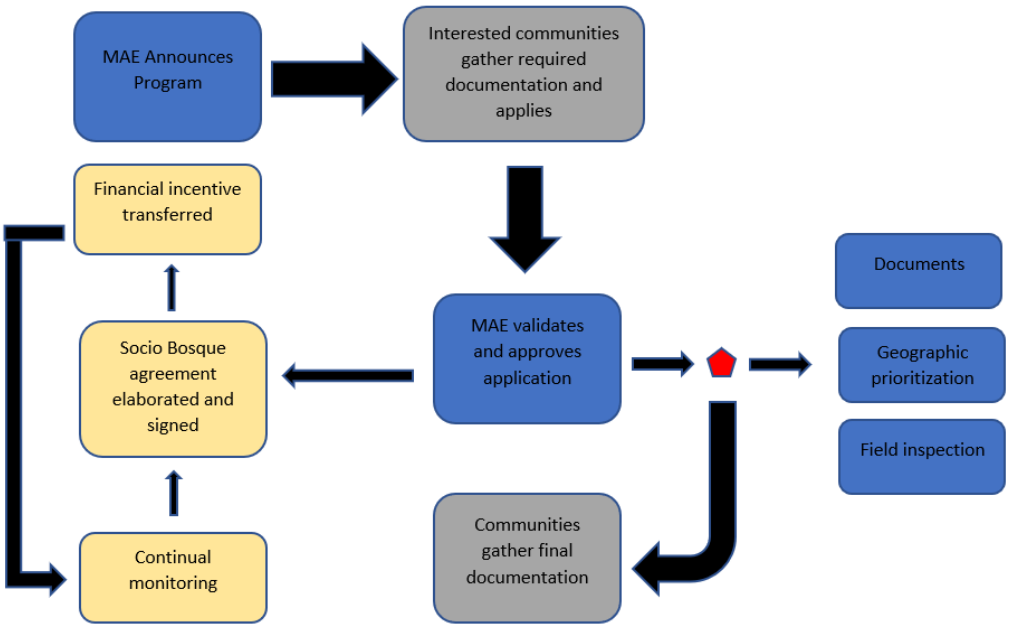
5.10 Institutionalized Socio Bosque - A Bureaucratic Burden

Oftentimes, the burden of institutionalized PES programs is borne by Indigenous peoples in the form of increased bureaucratic requirements placed on local communities. *Socio Bosque* is no exception. The institutionalization of *Socio Bosque* through a constitutional framework that places the state at the centre of environmental governance has created a complex scheme of rules and norms which local communities must navigate in order to be approved for the program. The norms and

rules are set in place to quantify programmatic success and to demonstrate achievement of national and international climate change goals. However, achieving goals takes precedence over local community wishes. As one high level MAE official told me during an interview in 2019, "REDD pays you for results and results are the most important, not you as people".

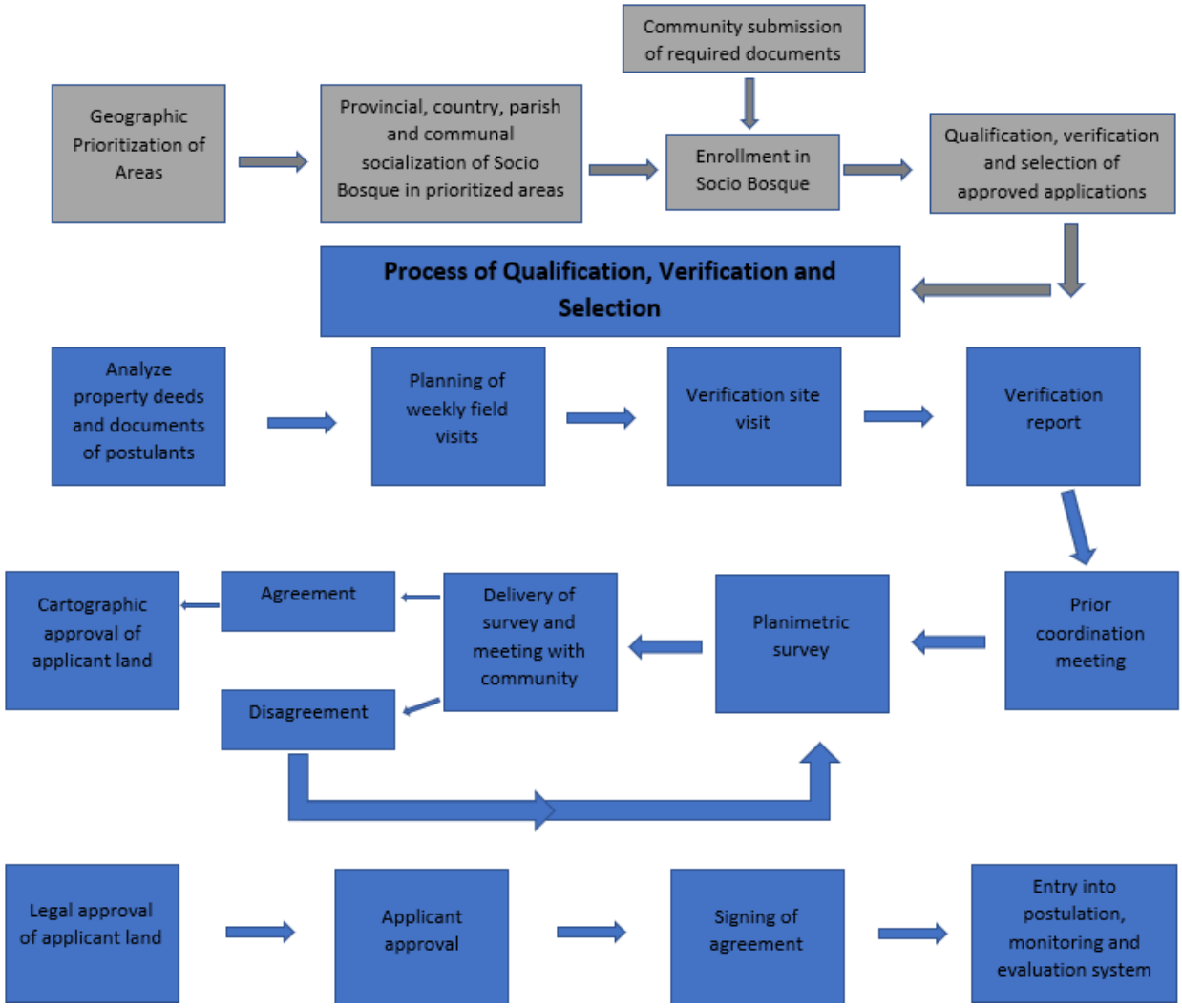
The following figures show the approval process created by MAE for potential *Socio Bosque* participants. The second figure expands on the "MAE validates and approves application" step in the first figure. The process, particularly the one outlined in the second figure, indicates numerous bureaucratic hoops through which communities must jump in order to receive entry into the program. One misstep along the way could mean that communities will be disqualified from consideration.

Figure 1: *Socio Bosque* Selection Process



Adapted by author from *Socio Bosque* document titled *Proyecto Socio Bosque*, 2013.

Figure 2: *Socio Bosque* Qualification, Verification and Selection Process



Adapted by author from *Protocolo de Postulacion y Calificacion de Nuevas Areas de Conservacion del Proyecto Socio Bosque*

For many communities, navigating this complex process is a drain on financial and time resources. Many community members interviewed expressed concern over the amount of time and money that was spent on meeting the bureaucratic requirements of MAE. In particular, one *tayta* interviewed asked why the community is involved in the program when "a majority of the money goes back to the state and very little comes to the needs of the communities", which will be discussed in further detail in the following chapter on the distribution of *Socio Bosque* incentive payments. In my own dealings with MAE, I experienced the difficulty some communities face when trying to fulfill the various requirements to enter and maintain themselves in the program when I had to meet various requirements to carry out field research.

5.11 Recruitment and Selection

On top of the complex maze that communities must navigate in order to be considered for *Socio Bosque*, part of the new bureaucratic requirements put in place is a recruitment and selection process that communities must complete in order to be considered for the program. Communities must first meet a set of ten requirements that include the following:

1. Legible copies of identity card and last voting ballot of the community legal representative
2. Copy of document validating the legal representative
3. Legible copy of RUC (that matches the legal status indicated by the property title submitted)
4. Active bank account certificate in the name of the updated collective property.
5. Legible copy of the Property Title with "registration in the Land Registry"
6. Copy of the certificate of legal existence and legal status of the community organization granted by a public entity.
7. Geo-referenced map of the area to be conserved (to be developed with PSB field technician)
8. Minutes of community assembly and attendance registration with the following information: a) Approval of entry to *Socio Bosque* b) Approval of Participative Investment Plan.
9. Updated certificate liens on property
10. Copy of statutes of the community organization

Included in these requirements are legal land titles certified by the Property Registrar, legal representation, an active bank account, an investment plan, financial accountability in the form of a legal accountant, and an "act" from the local assembly giving community approval that must be met in order for an individual or community to be part of the program. It is worth noting that many of these requirements are extremely difficult for Indigenous community members to fulfill, particularly a majority consensus in a local assembly. Moreover, the costs associated with obtaining these documents are not always reimbursed by *Socio Bosque* and must be covered by the community. Failure to meet the many requirements of the program can result in sanctions and penalties for the participating communities. The above requirements are necessary for a community to be considered for the program.

Every two years communities must also present a sworn statement reaffirming their participation in the program along with an updated land title/deed. Failure to present these documents can be cause for dismissal from the program. During 2016, when MAE failed to make incentive payments on time due to budget constraints, many communities were confused about meeting the requirements and thought the program might have ended and, as a result, did not comply with requirements and failed to hand in the necessary documentation. As a result, the program did not approve the incentive payment of 914 (888 individual and 49 collective) partners nationally due to a lack of documentation. One of the communities that formed part of this study was one of the 49 collective contracts that was denied payment. After a back and forth with MAE, the community was able to recover its payment, but not without costs, both financial and in time. MAE also made an exception to many of the other partners due to the misunderstanding created from the lack of incentive payments due to budget constraints beyond the program and MAE's control. This confusion surrounding responsibilities represents a lack of clarity about the rules and requirements, as well as a lack of communication from MAE to local communities. These requirements - such as bank accounts, ID cards (cédulas), and land titles - are all formal documents that the state requires in order for communities to be considered for the *Socio Bosque* program. The formal institutionalization of *Socio Bosque* extends the authority of the state and its perspective of nature and natural resources, land use, and resource management, further marginalizing, and even eliminating, the epistemic worldview of the *Kichwa*. The dichotomous relationship between the state's view on nature and the *Kichwa cosmovision* will be discussed in detail in Chapter 7.

Once a community's initial requirements are met, *Socio Bosque* follows a complex recruitment and selection process for communities who wish to participate in the program. The table below outlines the variables and sub-variables that form part of the points scheme that prioritizes communities for their selection into the program. These variables do not represent hard and fast rules of inclusion into the *Socio Bosque*, but provide guiding norms, as defined above, to those who evaluate the pre-conditions of communities and their acceptance into the program.

Table 12: Community Assessment for Selection

Variable	Sub-Variable		Points Assigned
Level of threat	Distance to access routes	Low distance	9
		Medium distance	6

		High distance	3
	Historical deforestation patterns (if available)		No points assigned
	*Demographic pressure – assigned only for *páramo* ecosystems and defined as parish population density according to INEC (National Institute of Statistics and Census)		
	*Conversion rate – the historical change in the use of the *páramo*, if information is available		
Environmental Services	Biodiversity refuge (Defined by the use of geographic information that determines surface of remaining native plant formations that are outside the National System of Protected Areas (SNAP). Plant formations with low representativeness in the SNAP will have a higher priority)	Very highly represented	4
		Highly represented	3
		Medium represented	2
		Low represented	1
	** Hydrological regulation (considers importance of area for the generation and regulation of water resources)	High	3
		Medium	2
		Low	1
	Carbon storage (based on the amount of stored carbon in different types of native forests, *páramo*s and other native plant formations, defined as a function of biomass)	High carbon content	3
		Medium carbon content	2
		Low carbon content	1
	*Connectivity - consists of prioritizing ecosystem connectivity criteria between protected areas, other remnants of vegetation and other forest partner areas		
Level of poverty (Using data from SIISE (Integrated System of Ecuadorian Social Indicators)	Poor (greater than or equal to 65% poverty rate – Basic Needs - NBI)		3
	Not poor (lower than 65% NBI)		0
TOTAL			22 possible points

MAE Acuerdo Ministerial No 115

* only for *páramo* ecosystems

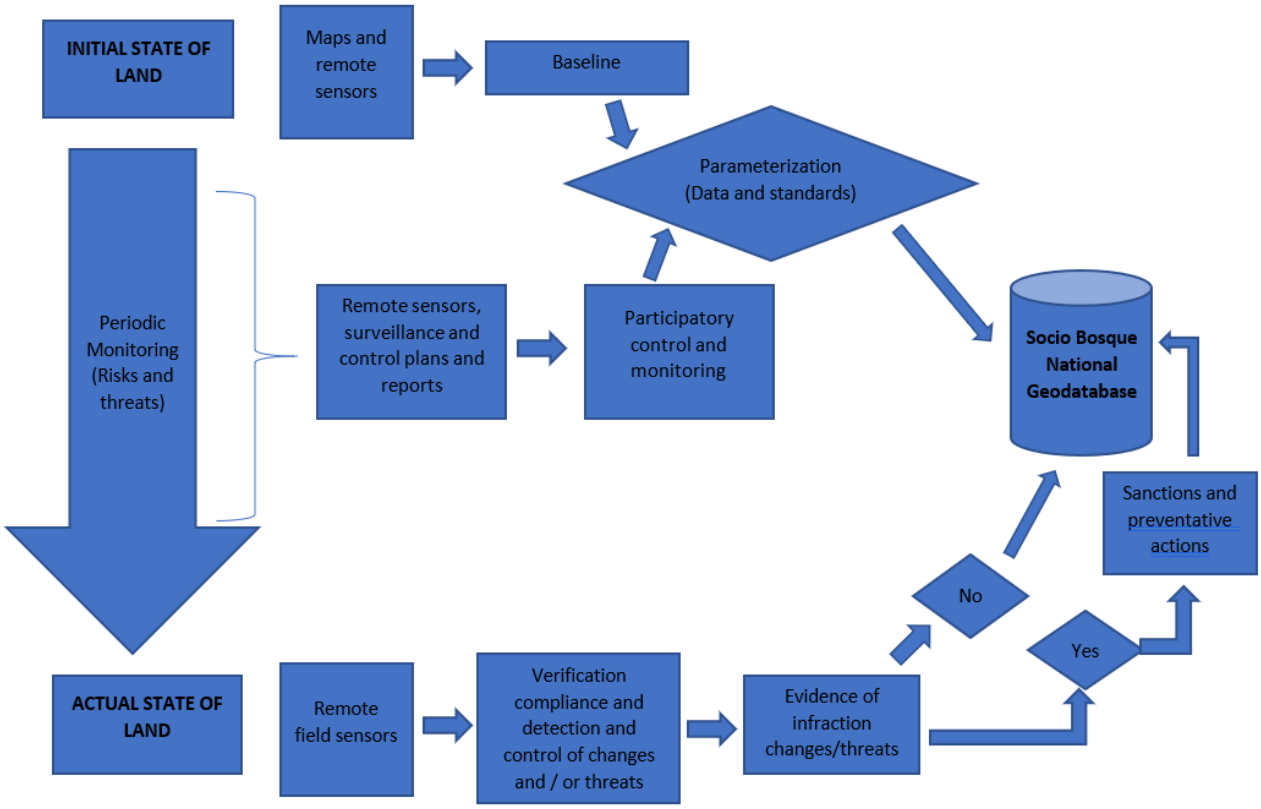
** under hydrological regulation for *páramo* ecosystems, the following factors are also taken into consideration: seasonal distribution (high 1 point, low 0 points), total precipitation (high 1 point, low 0 points), water demand (high 4 points, medium 2 points, low 0 points)

While these requirements are outlined in various MAE documents, it was not evident that they were used in the selection of collective contracts of the communities in this study. The definition of the subjective content included, such as the "low, medium or high" represented in the various categories, was also not explained in detail. The use of the above-mentioned prioritization categories, while not strictly followed within *Socio Bosque*, may be explained by an attempt of the Ecuadorian state to meet, at least on paper, various international requirements of climate change mitigation and adaptation in priority areas, specifically those ecosystems outlined as highly carbon reducing.

5.12 Institutionalized Rules through Monitoring and Evaluation

Once accepted into the program, participating communities are held to a strict standard of norms and rules outlined by MAE. The rules and regulations within *Socio Bosque* are guided by the initial set of beneficiary selection guidelines outlined above. When participants are selected, a set of manuals detail monitoring and evaluation (M&E) guidelines to MAE employees and community members. These manuals provide insight into how the program will select participants and measure success. Measurement has become key to the institutionalization of *Socio Bosque* by providing legitimacy for the program's interventions. Also, MAE is able to demonstrate in a quantitative manner the ways in which the program is having an impact on environmental conservation and the lives of participating community members. In order to be deemed successful, the state must be able to demonstrate positive gain in the form of achievable objectives. Therefore, MAE has created a monitoring methodology for *Socio Bosque* that combines the ranking and selection criteria outlined above with yearly visits by MAE technical staff to verify the state of the *páramo*. MAE sees monitoring and evaluation as key "to comparing the before and after conditions of the inscribed forest to detect and prevent change" (MAE, 2011a). As the graph below shows, MAE has a complex web of monitoring and evaluation that begins with a baseline study and continues to "participatory control and follow-up" based on remote sensors, a control and vigilance plan, and information and reports.

Figure 3: *Socio Bosque* Monitoring and Evaluation Cycle



Adapted by the Author from: *Metodología de Monitoreo para las Áreas de Conservación del Programa Socio Bosque - Versión 2*, 2016

Part of MAE's monitoring and evaluation regime includes yearly reports based on quarterly site visits by MAE employees to each community. MAE employees attempt to quantify the conservation efforts of local communities into legible measurements demonstrating success. On top of MAE's monitoring and evaluation efforts, local communities are required to carry out monitoring patrols of the conservation area to ensure that all requirements and obligations found in the agreement are being upheld by all community members, as well as avoiding intrusion of surrounding communities into the conservation area. Community participation within local monitoring of the protected areas is a norm set out by MAE. While local monitoring schemes and participation varies from community to community, MAE seeks to incorporate local, voluntary monitoring from the community in exchange for the incentive payment. In contrast, one main M&E requirement of or rule for the communities is an annual Plan de Inversion (PDI) or investment plan, which will be discussed in Chapter 7 in detail. These plans outline how the communities will spend the incentive

payment for each quarter. The communities are responsible for providing verifiable, legal receipts for each purchase, and if these requirements are not met, incentive payments can, and have been, withheld. These requirements result in communities being forced to purchase any expenses related to the program from formal businesses that provide receipts and, as a result, pay taxes back to the state. Various communities interviewed expressed their concern over the amount of the incentive payment that went back to the state in these transactions, considering the fact that many communities are accustomed to dealing informally without receipts and avoiding taxes. Therefore, this rule seeks to constrain local behaviours, specifically behaviours surrounding how the incentive payment is spent.

This monitoring and evaluation regime based on quantifiable measurements indicates a top-down, state-oriented implementation of *Socio Bosque* with little room for community input on what a successful climate change adaptation or mitigation program looks like. As long as MAE's objectives and measurements are achieved, the program is deemed a success in the eyes of the state. However, many local communities expressed frustration with the participatory aspect of measurement that requires them to patrol the conserved area. This is an obligation of each community member and in many communities, fines are in place for those who do not meet their obligations. Standard forms of measurement are important for what Scott (1998) describes as high modernist strategies, such as PES programs, to gain legitimacy. However, these forms of measurement indicate underlying power relations. As Scott notes, "every act of measurement [is] an act marked by the play of power relations" (Scott, 1998: 27). Scott goes on to argue that "objective measurement cannot be obtained" and there is "no single, all purpose, correct answer to a question implying measurement unless we specify the relevant local concerns that give rise to the question" (Scott, 1998: 26-27). Furthermore, the measurement employed by MAE can be considered "scientific" in nature and does not always reflect local ways in which successful environmental governance and conservation is measured. During interviews, community members discussed an increase in water and a return of animal and plant biodiversity, but also mentioned a decrease in their interactions with the *páramo* through the diminishing frequency of agricultural and livestock activities due to restrictions of the *Socio Bosque* program.

MAE does not only monitor and evaluate the mitigation and adaptation success of participating communities, but it also has a ranking system for periodic community evaluations designed to assess the organizational strength of each community. Similar to the selection process, these evaluations contain a points system based on the following elements

Table 13: MAE Community Assessment

Category	Sub-Category	Points Assigned
Administrative aspects	External Accountant	1
	Community members trained in accounting	2
	An accounting system exists	1
	Financial statements reported	2
	An appropriate workplace is available	1
	Equipment is available (computer 2 points and printer 1 point)	3
	A backup of documentation exists (Financial, Legal, Assembly registration)	3
	Basic supplies needed for the work are available (cell phone, internet, radio, etc.)	3
	Personnel are affiliated to IESS (Social Security)	2
Category Total		18
Financial aspects	The organization/community has managed projects (2 point), funds to execute (2 point), funds delivered through work (2 point)	6
	These projects were followed up	1
Category Total		7
Organizational aspects	The organization has statues or regulations	2
	When were the statues or regulations last updated (2 points 1 year or less, 1 point 2-5 years, 0 point 5+ years)	3
	Do the statutes / regulations establish sanctions for non-compliance with the functions and powers of the leaders?	2
	Do the statutes regulate aspects such as: salaries, per diem, mobilizations, etc.?	2
	Does the organization have: Census Life Plan or Management Plan Planning to comply with the Life Plan	3
	Does the organization have other institutional alliances	1
	Is the organization up to date with tax obligations	1
	The organization has experience in other productive/economic activities	2
Category Total		15
TOTAL		40

Based on their totals, communities are designated with a high organizational level (31-40 points), a medium organizational level (20-30 points), or a low organizational level (19 or lower). While there was no evidence that low-level results in any sanctions or expulsion from the program, it does warrant increased and continual monitoring of participating *Socio Bosque* communities by representatives in the Ministry.

Another ranking scheme within the *Socio Bosque* monitoring program is the follow-up within the PDIs. MAE representatives issue a report following the submission of financial documents from the community demonstrating how the incentive payments were spent. These financial documents must include supporting receipts and a strict accounting format that communities, or their hired accountants, are required to fill out. They are scored on the following criteria.

Table 14: MAE Monitoring and Evaluation Community Compliance Assessment

Criteria	Sub-criteria	Points awarded
Does the report have the following (1 point if they have it, 1 point if they have used the established MAE formats)	Financial template	2
	Advancement of objectives template	2
	Receipts template	2
	Control and monitoring report (no MAE format)	1
Activities completed in the established time	(Greater than 70%: 2, Between 50 and 69%: 1 and Less than 50%: 0)	2
Fulfillment of planned activities	(Greater than 70%: 2, Between 50 and 69%: 1 and Less than 50%: 0)	2
Financial execution in relation to what was stipulated	(Greater than 70%: 2, Between 50 and 69%: 1 and Less than 50%: 0)	2
Backup (receipts) that justify the report	Very satisfactory (3), satisfactory (2), regular (1), unsatisfactory (-1)	3
Report reception time	On time (2), brief delay – less than 1 month (0.5), severe delay – more than 1 month (-1),	2
Have there been cases of complaints or disagreement of partners regarding financial management?		No points assigned
In general, how is the financial management perceived	Very satisfactory (3), satisfactory (2), regular (1), unsatisfactory (-1)	3
Total		21 possible

This ranking is used to determine if a community is eligible to receive the next incentive payment. If a community receives between 14-22 points, they will receive their next payment. If a community falls between 9-14 points, they will receive their payment but will have "continual monitoring".

Anything less than 9 points will result in a sanction of the community losing the next incentive payment.

5.13 An Unequal Contract

Another way in which an institutionalized *Socio Bosque* organizes local community and state interactions is through the contract between MAE and beneficiary communities that outlines partner obligations and prohibits traditional land use and practices. Once communities pass the initial approval phases, they are required to sign a non-negotiable, 20-year contract with the Ministry of Environment. This contract reinforces a highly unequal distribution of power, which can be seen in the number of obligations for each party. MAE only has 3 obligations while local communities have 15 obligations. Below is a list of the obligations of each party involved.

Table 15: *Socio Bosque* Contract Obligations

Ministry of Environment	Community
1. Make the incentive transfers on the months established in the operation manual 2. Perform monitoring and evaluation with the purpose of verifying fulfillment of this contract 3. Provide technical assistance to the executor on matters related to this agreement	1. No converting to crops or introducing exotic species of flora in the conservation area 2. No burning in the conservation area 3. No animal grazing with bovine, ovine or equine species, unless MAE grants permission to specific cases 4. No carrying out activities that alter the natural behaviour or threaten the capacity to provide refuge to biodiversity or alter the natural hydrological conditions of the conservation area 5. No hunting wild animals in the conservation area 6. Inform, within 5 days, the *Socio Bosque* program about transfers or limitations of ownership of the beneficiary estate of the incentive 7. Prevent fires in the conservation area and, within 5 days, inform *Socio Bosque* and other competent authorities of any events 8. Permit the access of *Socio Bosque* representatives into the conservation area and assist them in their work 9. Adequately identify the conservation area with signs located at a convenient distance, in agreement with *Socio Bosque* 10. Deliver to the *Socio Bosque* project the information about the conservation area that is required 11. Fulfill what is planned in the Plan de Inversion (Investment Plan) 12. Fulfill the obligations established in the Environmental Legislation, its regulations, other

	applicable rules that this Letter from the State issues for the purpose and in the agreements signed with the MAE for the SB project 13. Deliver a reliable report of personal information and the conservation area 14. Deliver, every 2 years, a sworn statement mentioning that the conservation area is in the same conditions as the admission date into the program and that there has been a good use of the resources provided by MAE 15. Deliver, every 2 years, an updated ownership certificate of the property that is part of the conservation area

As can be seen, MAE has very little responsibility for the conservation and protection of the conservation area. Their responsibility is limited to technical assistance, monitoring and evaluation, and financial incentive payments. The "dirty work" for the conservation and protection of the area falls entirely on the community as a source of free labour to carry out work on behalf of MAE. If a community fails to meet any one of the 15 obligations in a given period, MAE reserves the right to temporarily suspend the incentive payment for one period. It is also worth highlighting that much of the labour provided to conserve the *páramo* and monitor the success of the program in the communities is not remunerated but provided voluntarily by community members on the threat of being terminated from the program. All communities that participated in the research had various monitoring strategies where community members were responsible, on a rotating basis, to patrol the area to ensure its continued conservation. None of this work was compensated and penalties were in place, such as a fine (sometimes up to $20 USD or a reduction in their portion of the incentive payment) for community members who missed their turn.

The contract between MAE and participating communities can also be terminated after three incentive payment suspensions, an early, anticipated exit from the "socio", or by "decision of the Ministry of Environment" (Acuerdo Ministerial No. 115, 16). In each of these cases, MAE will present a report with the possibility of applying further sanctions of restitution of incentive payments using the scale below. Even in the case of an early, anticipated exit from the *Socio Bosque* program, MAE has the ultimate approval of the exit which requires "previous authorization of MAE" where a decision will be made to determine if sanctions below are applied. On top of paying

back the incentive, if MAE terminates the contract, they can "initiate administrative, civil and penal actions according to the law" (Acuerdo Ministerial No. 115, 16).

Table 16: MAE Sanctions for Community Contract Termination

Category	Time in ***Socio Bosque***	Sanction (% that must be paid back to MAE)
1	1-5 years	100% restitution
2	6-10 years	75% restitution
3	11-15 years	50% restitution
4	16-20 years	25% restitution

MAE, Acuerdo Ministerial No. 115

Nowhere in the Ministerial Agreement or the *Socio Bosque* operation manual does it state that communities are able to terminate their participation in the program if MAE fails to meet its obligations. It could be argued that MAE failed to live up to its obligations in 2016/2017 when it fell behind in making incentive payments, one of their obligations, due to financial constraints (Ortiz, 2017). A number of communities interviewed expressed their disappointment with the late payments, while at the same time recognizing that incentive payments are subject to circumstances that are out of their control. However, the communities were also aware of the obligations placed on them and that they are required to meet these obligations without leniency on the part of MAE.

The sanctions applied to the community for breaking the contract or agreement are highly unequal and have created confusion within communities. In one particular community, incentive payments were withheld for breaking the contract. As one *tayta* from the community noted,

> "There are requirements to meet and this is very clear. It is our obligation. There was no information [from MAE] and I felt annoyed because they took the 2016 incentive because they said we did not present the required document. It is not because of carelessness...we forgot. We were informed that our community lost the incentive for not presenting documents. It cannot be that by a simple document, that if we recognize that it is our responsibility, they took away the incentive. We explained ourselves but they did not listen". (*Tayta* interviewed in Community 1, 2018-04-30).

> *"Hay requisitos que cumplir y esto está muy claro. Es nuestra obligación. No había una información [del MAE] y me sentí molesto porque 2016 nos quitaron un incentivo porque dijeron que no presentamos el documento certificado de graban. No es por el descuido…nos olvidamos. Nos comunicaron que la Chorrera ha perdido el incentivo por no presentar. No puede ser que, por un simple*

documento, que si reconocemos que es nuestra responsabilidad, nos quitaron el incentivo. Reclamamos y no dieron el oído de escuchar".

While the community was eventually told by MAE representatives that their 2016 payment would be reimbursed, at the time of conducting field research, the community had yet to receive the payment and explained that they were worried the payment would not come. Community members reiterated the need for more active communication between MAE and the communities. "If they don't communicate, we don't know that we need to fulfill our responsibilities" (*Si no comunican no sabemos para cumplir con nuestras responsabilidades).* stated the same *tayta.*

5.14 Conclusions

The empirical evidence presented above shows that PES programs are heavily governed by rules and norms that institutionalize a predictable and measurable performance regime which is itself imbedded in a historical context of unequal power relations between communities and the state. As *Socio Bosque* has become increasingly institutionalized, so have the rules and norms that outline entrance into the program and monitor the implementation and success of the program. These rules and norms structure behaviour between communities and *Pachamama* and between communities and the state. Furthermore, the rules and norms embedded in market-based environmental governance programs like *Socio Bosque* structure and constrain local actions, decisions and participation, which runs counter to the free market ideology of market-based environmental governance instruments, such as REDD+, that claim to promote inclusion and participation of marginalized groups. The larger conclusions that can be drawn about the effects of an institutionalized *Socio Bosque* program on *Kichwa* Indigenous communities in Chimborazo can be divided into the following headings: 1) Market-based environmental governance programs are highly governed through norms and rules; 2) The burden of new institutional arrangements and bureaucratic rules and requirements reinforce unequal power relations between the state and local communities; and, 3) An institutionalized *Socio Bosque* program changes local land use practices and governance regimes.

1) Rules and norms of environmental governance

The rules and norms put in place for *Socio Bosque* structure interactions and behaviours of local communities. Beginning with the Constitution, a framework for environmental governance shapes

state responsibility that, in turn, constricts and marginalizes local communities. At times, the framework creates a dichotomy between state control over natural resources and the market-based incentive programs like *Socio Bosque*. As Article 74 of the Constitution indicates, ecosystem services are not susceptible to appropriation, but in order for PES programs to function, they require appropriation and privatization of ecosystems. This privatization and appropriation can run counter to Indigenous use of communal land that, while privately owned by the community, is viewed as a resource for all to access and use. The rules and norms of restricting access to communally owned *páramo*s changes community and individual behaviour which can deepen inequalities between community members, separating those who have access to their own private land and those who more heavily rely on communal land for animal grazing and agricultural production. In spite of the inter and intra communal inequalities deepened by *Socio Bosque*, data presented later in Chapter 6 suggests that, in spite of these differences and inequalities, communities choose to participate in and benefit from *Socio Bosque*.

Rules and norms in the form of requirements to enter the program, the monitoring and evaluation of progress and community compliance, and the measurable success of the program constrain local activities and restrict access to the program. The Ecuadorian state has obligated communities to conform to strict requirements to be considered for the program and to measure success within the program. These measurements fit a prescribed mold of international climate change adaptation and mitigation strategies and goals. As a result, local land use and resource management practices have changed and unequal power relations between the state and Indigenous communities are reinforced, resulting in meaningful inclusion and participation of Indigenous communities being restricted to a framework outlined by the state. The hierarchy of territorial organization and planning, which includes environmental governance policies and programs, clearly places the central state and its National Development Plans and climate change strategies as the authority figure to which all other levels of government are subject.

2) New institutional arrangements and bureaucratic burdens: A changing role of the state

As argued throughout this chapter, the creation of *Socio Bosque* brought new institutional arrangements and bureaucratic requirements that communities must fulfil in order to become a part

of the program and to maintain their status as participants. On the surface, these new arrangements and requirements may seem simple, but the burden placed on Indigenous communities to meet them is immense. Furthermore, these arrangements are in place to achieve goals and results that demonstrate Ecuador's efforts to combat climate change and meet international requirements of programs like REDD+. However, by conforming to international rules and regulations outlined in programs like REDD+, local populations' *cosmovision*es, values and livelihoods are marginalized in exchange for results. The burden placed on achieving results is unequally born by local communities who must demonstrate to MAE officials their obedience to rules, norms and regulations laid out by MAE. Communities interviewed stated that the exhausting procedures they must fulfill place financial and organizational strain on local organizations and leaders in order to meet the annual requirements of MAE.

The new institutional arrangements and bureaucratic requirements indicate an unequal power relation between the state and Indigenous communities as the expectations for communities are much higher than those of the state. While the state can break expectations, as indicated by the delay in incentive payments in 2016 (Ortiz, 2017), communities do not have the same luxury when presenting documents to MAE, and MAE does not have a long-term, institutional, or financial commitment to the Ministry of Environment and environmental conservation programs like *Socio Bosque* (Paz Cardona, 2020). As a result, a change in government or policy direction could threaten the long-term sustainability, of the program. The fact that MAE can terminate the contracts at any moment without sanction or consequences, combined with the unequal list of obligations and the limiting or prohibiting of traditional land use practices suggests a disproportionately unfair agreement for communities. On top of termination, the constant threat of financial sanctions looms over the communities.

The sanctions enforced by *Socio Bosque* appear little different from the hacienda system that dominated political, economic, and social relations in the province of Chimborazo until the early 1990s (Bretón, 2012; Lyons, 2006, 2016; Tuaza, 2014). While the sanctions of the landowner vis-a-vis the Indigenous communities may have been more brutal under hacienda rule, a similar punitive methodology is employed by the state in *Socio Bosque*. Under the hacienda system, Indigenous

populations worked for the hacienda landowner in exchange for a small piece of land (*huasipungo*) and, at times with benevolent landowners, various favours, such as gifts during times of holidays (fiestas). These gifts were used by landowners to create a form of clientelism where the Indigenous peoples would support an abusive landowner who was directly infringing on their rights because he provided for them (Lyons, 2006, Bretón, 2012, Tuaza, 2014). These forms of "gifts" are rooted in the Indigenous *cosmovision* surrounding reciprocity and the institutionalized hacienda system, as well as the Incan empire before it, which has provided the framework for state-community interaction (Murra, 1980; Estermann, 2003; Lyons, 2006). As a result, the state has simply taken the place of the benevolent landowner who supplies the gifts and provides goods in exchange for loyalty (Tuaza, 2014). Similarly, the benefits and incentives that have been provided by *Socio Bosque* are not really seen as a right that can be possessed by local communities, but rather as a gift or a favour that is provided on the condition that communities comply with certain requirements, one of which is changing current land use patterns, such as animal grazing, to conform with *Socio Bosque* conservation requirements which do not allow agricultural or livestock activity. The incentive payments, or gifts as seen by the communities, form part of the coercion, consent, and persuasion that forms an integral part of hegemony and the implementation of a dominant ideology.

Not only does the *Socio Bosque* agreement between communities and the government structure state-community interaction, but it also alters local governance institutions that now must respond to a centralized structure within the Ministry of Environment (MAE). Local autonomy is held within a framework of accountability set out by MAE bureaucrats who respond to a centralized hierarchy within the Ministry that is concentrated in Quito, the capital. On a positive note, communities are involved in monitoring the use of the *páramo* at the local level, for which advocates and scholars like Ostrom have long argued. However, information, data, and monitoring and evaluation run up the administrative ladder from the community level to *Socio Bosque* representatives at the MAE offices in Riobamba, the capital of Chimborazo. From there, government officials collect data that is sent further up the chain to Quito where the central offices of *Socio Bosque* are the final authority. While the program does provide for some local autonomy and flexibility in environmental governance and management of the *páramo*, communities are extremely limited in their ability to manage the program as they want. An example of this was found in various interviews where community leaders and members expressed that they were unable to spend funds distributed through the *Socio Bosque*

program exactly as they had wanted and that they were obligated to carry out various voluntary monitoring activities of their land as part of their agreement with MAE. One community hoped to set up a local micro-finance loan system, but this initiative was denied by MAE since it fell outside of the parameters of how the funds could be spent, and many community members stated that they are obligated to monitor the *páramo* without remuneration, taking away precious time that could be committed to other sources of income generation, such as agriculture or manual labour in construction. The rules and norms set up by MAE to monitor and evaluate community spending stem from official concerns that money was being misspent by community leaders and members. However, when viewed in light of the local context of the *Kichwa* Indigenous people of Chimborazo, these monitoring and evaluation requirements are, once again, not entirely different from the labour and social requirements forced upon Indigenous communities in the hacienda regime. While requirements of the landowner vis-a-vis the Indigenous people for many have been different in the hacienda system, a similar control, monitoring and organization of the communities is employed by the state in *Socio Bosque* .

Highly bureaucratic processes such as those outlined above have also contributed to a sense of conflict and distrust towards the government implementing body, the Ministry of Environment, highlighting the role of local leaders in mobilizing community support for the program. During the initial phases of *Socio Bosque* in Chimborazo, Indigenous political and economic elite entered communities to oppose the program. Various communities that participated in this field research commented on the fact that Indigenous political representatives explicitly told them that *Socio Bosque* was a state-led attempt to dispossess them of their land. While this opposition can be explained by an ongoing rift between Indigenous political parties and the ruling government, *Alianza PAIS*, it also indicates power relations within Indigenous communities as Indigenous political and economic elite exert power and manipulate communities for their own personal gain. These complex relationships are rooted in vestiges of the hacienda system where Indigenous overseers, or *jipus*, abused their own community members and were subservient to the hacienda landowner. Upon the dissolution of the hacienda system, many *jipus* took up prominent political and economic positions within the communities (see Tuaza, 2014). As a result of these complex relationships in communities, during our interviews a number of local leaders expressed difficulty in communicating the benefits of the *Socio Bosque* program to local community members. They also expressed the need for continued

awareness of the benefits of the program within the community, something that will be explored in greater detail in the following chapter. On the other hand, community members reported feeling fearful and distrustful about losing land for which they had struggled and fought to obtain basic title during the dissolution of the hacienda system. According to one community leader interviewed, "some community members physically hit/struck me when they heard of the decision to join the program, but today the people understand and are aware of the benefits," highlighting the possibility that the arrival of *Socio Bosque* has unleashed dormant fears and conflicts within the community.

3) An institutionalized Socio Bosque has changed local land use practices and governance regimes

Finally, my observations of *Socio Bosque* in Chimborazo suggest an administrative field of practice that changes local environmental governance perceptions and practices (including ones rooted in highly spiritual beliefs) for national and (more ambitiously) global climate policy goals and agendas. In order to achieve global goals and agendas, the Ecuadorian state has institutionalized *Socio Bosque* by linking it to the concepts of *Pachamama* and *sumak kawsay*, instilling a moral regulation and obligation that persuades Indigenous communities to engage with and participate in the program under the guise of achieving *sumak kawsay* or caring for *Pachamama*. For Lyons (2006), persuasion is "symbolic actions (including verbal communication, ritual expression, and other transactions in meanings) that (when successful) brings the dispositions and subjectivities of others into a closer alignment with the desires or interests of the persuader (222-223). On the other hand, coercion is "the threat of imposition of undesirable consequences for undesired behaviour" (Lyons, 2016: 223). In this sense, the state's use of Indigenous concepts does not coerce, but acts as a tool of persuasion for Indigenous communities to bring their ways of living and knowing into alignment with state-led goals for environmental governance and resource management. As a result, this moral regulation and obligation produces and reproduces social and cultural identities and subjectivities and shapes Indigenous communities' relationships to land and place, as well as the state. As such, the moral regulation and obligation embedded in *Socio Bosque* is similar to the hacienda system which created a "domain of mutually constituting meanings and relationships embedded in linguistic, disciplinary, and religious practices" (Lyons, 2016: 221). The creation of these meanings and relationships form part of the discipline, coercion, persuasion, and consent that all form an integral part of the implementation of a hegemonic ideology that subsumes and erases traditional Indigenous relationships with nature, resource practices, and land use.

This shift away from traditional resource practices and governance institutions causes fundamental changes in *Kichwa* communities in Chimborazo. First, changing land use and resource management practices under the guise of environmental conservation can also be seen in the use of Indigenous concepts as justification of continued, and even increasing, resource extraction priorities and policies. In many cases, the implications of achieving the goals of *sumak kawsay* outlined in institutions like SENPLADES can run counter to the preservation of ecosystem biodiversity and change local land use and resource governance. For example, mining is one of the most environmentally destructive extractive industries and has detrimental social and cultural impacts (see Bebbington, 2012), and the case of Community 2 provides an example where national development through mining functions in the same *páramo*s as *Socio Bosque*. Second, in order for PES programs like *Socio Bosque* to function, land must have ownership, be it communal or individual. While private property within *Kichwa* communities exists, much of the land that became a part of *Socio Bosque* is communally owned. Historically, this land has been used by the entire community for a variety of social, economic, and cultural activities, such as agriculture, livestock grazing and sacred ritual practices.

The *Socio Bosque* contract obligates communities to change these traditional land use practices by stating that communities can under no circumstances modify the conservation area or the soil use, including agricultural and pastoral activities and any type of resource extraction. As a result, traditional land use is prohibited and Indigenous forms of livelihoods are delegitimized and prohibited. According to one local project, the *Proyecto Páramo Andino* in Chimborazo, local communities regularly burn the *páramo* in the belief that the smoke from the fire will "call" in the rain during times of drought, thereby facilitating the regeneration of vegetation (resulting from the release of nitrogen) for animal grazing. But from the state's perspective, burning the *páramo* is seen as an environmentally-damaging cultural practice that contributes to climate change. However, controlled burning has been shown to prevent wildfires caused by lightning or other natural or human-induced factors. By contrast, leaving the *páramo* allows the grasslands to grow excessively, choking out other forms of vegetation that are essential for biodiversity and ecosystem health (Flores et al., 2012: 225). It goes without saying that pre-existing resource practices and insights of this kind are rendered irrational, irrelevant, and invisible by policy discourses that associate forest

and grassland conservation with the global fight against climate change. Communities are no longer able to interact with the *páramo* ecosystem as they have in the past. While this change may be seen as a positive in the realm of environmental conservation, communities are losing livelihoods that sustain their way of living and the money received from PES programs like *Socio Bosque* is an insufficient replacement.

Chapter 6

"Nuestros *Páramo*s no Cuestan Esta Miseria": The Arbitrary Valuation of Nature

6.1 Introduction

The previous chapter explored the ways in which an institutionalized *Socio Bosque* program creates norms and rules that structure the inclusion and participation of Indigenous communities and restrict local communities' engagement with the *páramo* ecosystem and with the Ecuadorian state. The evidence in the previous chapter suggests that the institutional constraints placed on Indigenous communities exclude and marginalize them from meaningful participation and places the state at the centre of environmental governance and climate change policies and strategies, creating norms and rules that further reinforce hegemonic forms of state-community relations. The exclusion and marginalization of Indigenous communities from *Socio Bosque* reinforces unequal power relations between Indigenous communities and the state. However, in spite of exclusion, marginalization, and unequal power relations, Indigenous communities still choose to participate in *Socio Bosque.* Indigenous participation in *Socio Bosque* suggests that active consent and participation of subordinate groups is an integral part of the concept of hegemony. Indigenous peoples are not bystanders who are passively dominated by elite rulers, but they find ways to interact with state-led initiatives in complex ways.

This chapter will explore the economic aspect of *Socio Bosque* as an influence for Indigenous participation in the program. The chapter will also explore the ways in which value is assigned to nature within *Socio Bosque* and, as a result, some of the effects surrounding the distribution of incentive payments at the local level in five *Kichwa* communities that form part of the *Socio Bosque* program in Chimborazo. The chapter will begin by drawing from secondary sources to discuss the overall distributional effects of *Socio Bosque* at a national and provincial level. The principal aim of this analysis is to understand the national, provincial, and local breakdown of the *Socio Bosque* contracts, the areas conserved, and the distribution of incentive payments. This analysis will frame the overall discussion around incentive payments and the local participation and decision-making power within the incentive payment plan process. It will also provide a greater understanding of the spending priorities for the local communities that participated in this study in contrast to those of the provincial and national level. Various MAE and *Socio Bosque* sources were used to gather the statistical information found in each level of analysis. These documents were combined with interviews of community members and MAE/*Socio Bosque* representatives.

In order to achieve the goals mentioned above, the chapter will be guided by the following questions:

- How does the distribution of incentive payments within Indigenous communities in Chimborazo affect local environmental governance and conservation efforts?
- How have these five communities spent their incentive payments and, as a result, what conclusions can be drawn about community priorities?
- How are the incentive payments representative of distribution within *Socio Bosque* at the national level and other individual cases?
- How do economic payments constrain or induce local participation?

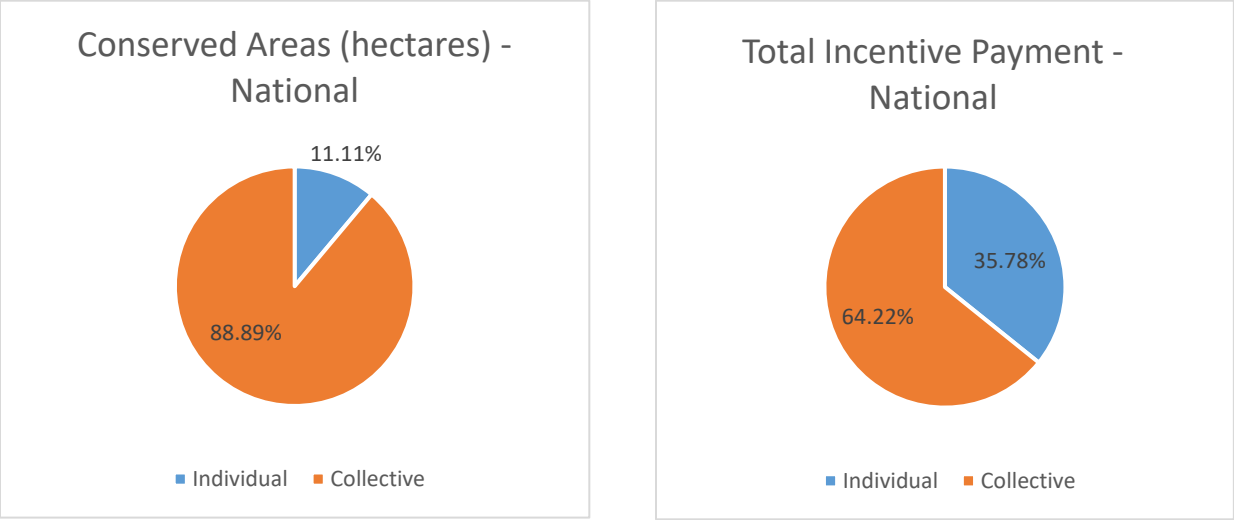
By answering these questions, this chapter suggests four main findings: 1) that communities have materially benefitted from *Socio Bosque* ; 2) this material benefit, and the institutional arrangement that facilitates distribution, was set up in a way that clearly benefits individual landowners, resulting in a continuation of colonial legacy that marginalizes Indigenous communities; 3) even with the seemingly unequal incentive payments, Indigenous communities have chosen to participate in *Socio Bosque* ; and, 4) while the distribution of incentive payments encourages local communities to conserve the *páramo* ecosystem, findings indicate that it is not the primary force in motivating communities to conserve communal lands. Furthermore, conservation of the *páramo* ecosystem is limited to the conserved area where *Socio Bosque* is implemented while surrounding land and communities continue to move up the *páramo* ecosystem with agricultural and livestock production, demonstrating that a conflict exists within Indigenous communities between *páramo* conservation and livelihoods.

6.2 National Level Contract Analysis

Since beginning in 2008, *Socio Bosque* has grown from a small incentive program to a national level PES program that has expanded to all regions of the country. This section will provide statistical information regarding *Socio Bosque* contracts at the national level. The aim is to provide a macro-level understanding of the distribution of *Socio Bosque* contracts and incentive payments, the various Indigenous communities participating in *Socio Bosque*, and the total area conserved at a national level. According to 2016 data, there are a total of 2,736 contracts signed with the *Socio Bosque* program in all of Ecuador, of which 191 are "collective contracts", meaning they are signed with communities

or communally owned land. This means that nearly 93% of all contracts signed at the national level are with individual landowners. However, the number of beneficiaries that are part of collective contracts make up nearly 95% of the total beneficiaries. The individual contracts make up only 11% of total hectares conserved, yet these individuals receive over 36% of the total incentive payments. Meanwhile, community contracts make up 89% of the conserved area but receive only 64% of the total incentive payments.

Figure 4: National Area Conserved and Payment of *Socio Bosque*



The contrast in incentive payment between individual and collective contracts is even more stark when the incentive payment is broken down per beneficiary. Beneficiaries who are part of collective contracts receive an average of $36.32 USD per beneficiary, while those who form part of individual contracts, which can include extended families of the participant, receive $362.24 per beneficiary.

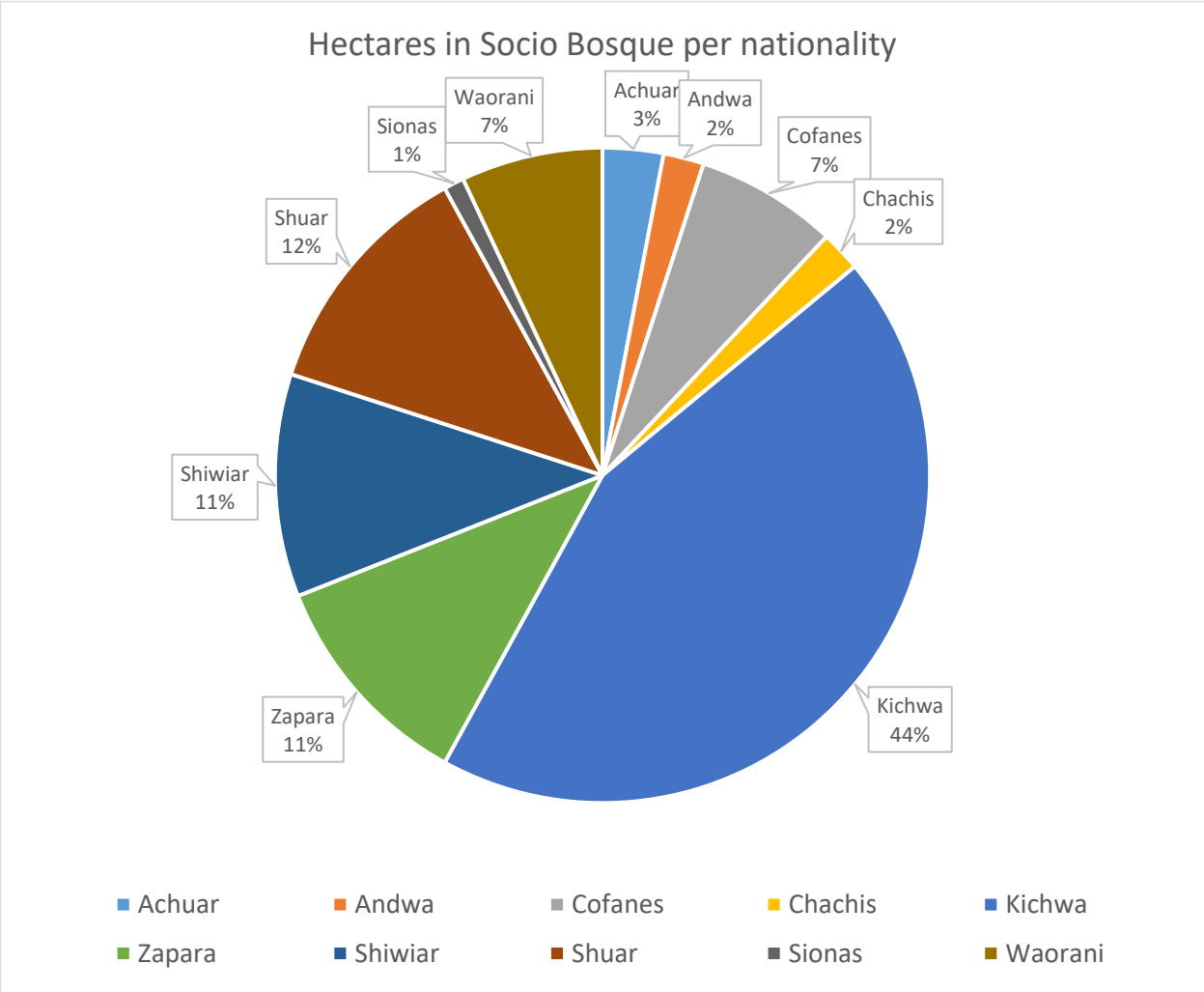
Table 17: *Socio Bosque* National Statistics

***Socio Bosque* National Statistics**					
Type of Contract	Hectares conserved	Annual Incentive (USD)	Total Beneficiaries	Incentive per Beneficiary (USD)	Contracts Signed
Collective	1,300,913	6,399,222	174,746	36.32	191
Individual	166,037	3,645,326	10,091	361.24	2,454
Total	1,466,950	10,044,548	184,837	54.34	2,736

MAE 2016 Data Sheet
Total beneficiaries include men, women and children. The totals also include the Socio Manglar portion of the program which is for the mangrove ecosystems on the coastal region of Ecuador.

At the national level, *Kichwa* Indigenous people make up the largest ethnic group in *Socio Bosque*, followed by the *Shuar, Zapara* and *Shiwiar*. The majority of these ethnic groups are found in the Amazon region of Ecuador, including the *Kichwa* who are also found in Chimborazo.

Figure 5: *Socio Bosque* Conservation per Nationality (Hectares)



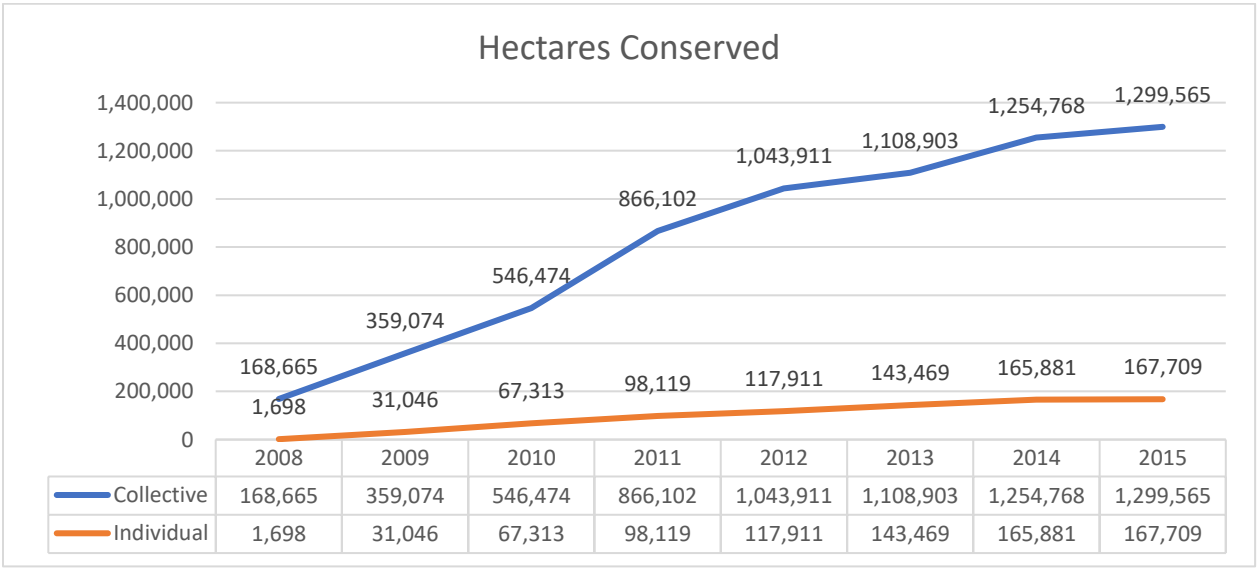
The graphs below, taken from *Socio Bosque*'s Monitoring Manual, show the increase in individual and collective contracts signed. Since 2016, due to financial constraints, there have been no new participants accepted into the program. What becomes clear from the graph below is that individual contracts experienced a substantial increase compared to collective contracts.

Figure 6: National *Socio Bosque* Contracts

	2008	2009	2010	2011	2012	2013	2014	2015
Collective	21	37	58	85	127	153	187	190
Individual	38	361	881	1,418	1,818	2,184	2,550	2,562

Even with the large gap between the number of collective and individual contracts signed, collective or community contracts clearly protect more ecosystem surface area than individual contracts, 1,299,565 hectares to 167,709 hectares.

Figure 7: National *Socio Bosque* Area Conserved (Hectares)

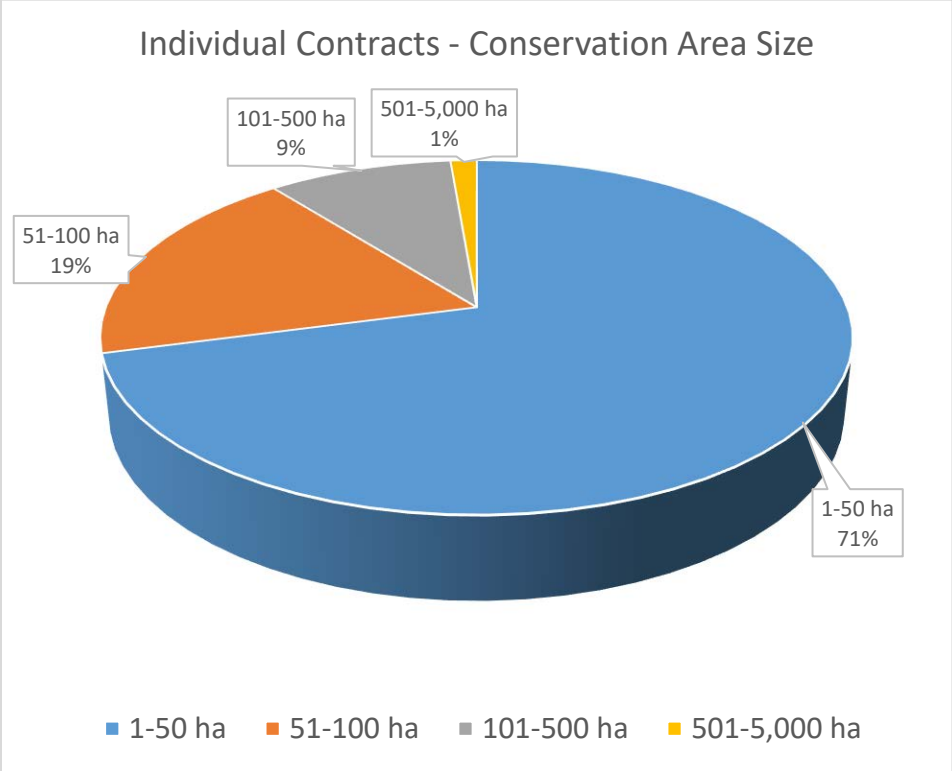


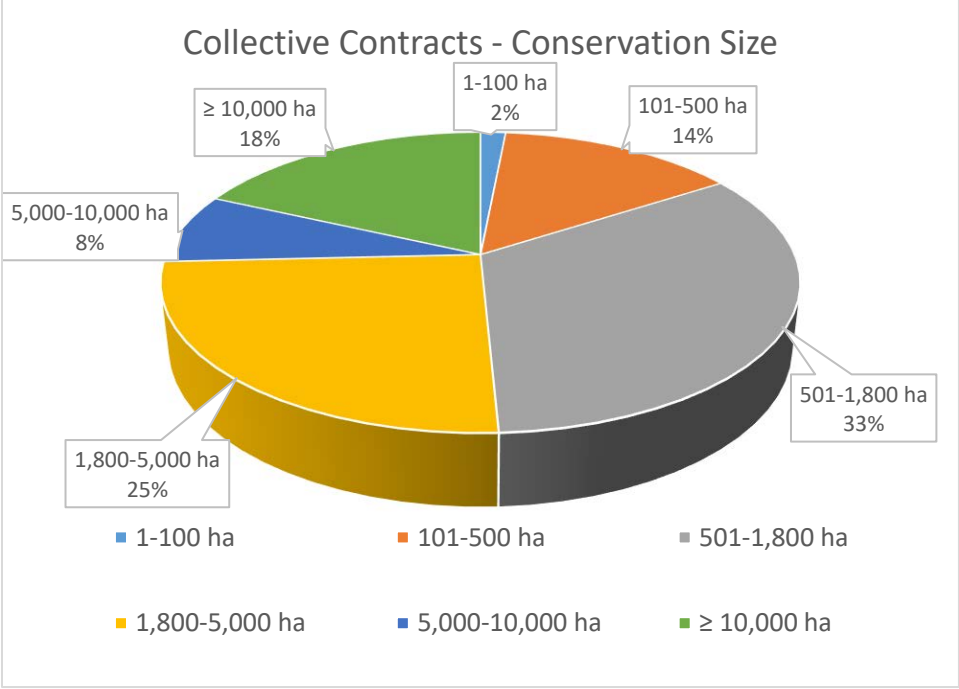
	2008	2009	2010	2011	2012	2013	2014	2015
Collective	168,665	359,074	546,474	866,102	1,043,911	1,108,903	1,254,768	1,299,565
Individual	1,698	31,046	67,313	98,119	117,911	143,469	165,881	167,709

Not only is the total area conserved much lower with individual participants, but the number or hectares conserved per participant is also lower than that of collective contracts. The majority of

individual participants (70%) have only 1-50 hectares in the *Socio Bosque* program, while 33% of collective contracts have between 510-1,800 hectares and 25% have between 1,801-5,000 hectares.

Figure 8: Individual and Collective Contract Conservation Area Size





The fact that Indigenous communities conserve considerably more hectares of land within the *Socio Bosque* program compared to individual landowners reinforces the importance of engaging with Indigenous communities as large landholders in climate change and mitigation strategies, as studies have shown (Campbell et al., 2008; EDF, 2015). The disproportion between community and individual hectares conserved also speaks to the fact that individual landowners are able to divide larger landholdings into smaller parcels, while the Article 57 of the Constitution states that Indigenous communal lands are "inalienable, unattachable and indivisible". Similar statements can be found in the Rural Lands and Ancestral Territories Law and the Organization and Regime Law of the Communes. As a result, Indigenous communities are prohibited from dividing communal land into smaller plots to take advantage of *Socio Bosque*'s sliding incentive payment scale which pays higher amounts for smaller plots of land.

6.3 Incentive Payment Scales

One of the difficulties of PES programs is assigning the exact economic value, as well as the real and opportunity costs of conserving local ecosystems, to be paid to participant communities. The following section will use the case of the *Socio Bosque* incentive payment scale to assess the extent to which the program is implemented and paid out in a uniform, top-down fashion. In Ecuador, MAE developed a sliding scale that determines the amount of incentive payments participants receive. This scale was developed in 2011 after the original payment scheme did not differentiate between ecosystem, type of landowner (individual or community), or the number of hectares in the program. During an interview a former MAE director stated that the "payment amount was largely arbitrary and based on the budget constraints of the state" and did not reflect any actual economic calculation of the ecosystem services within each community. The fact that the 2019 MAE budget was reduced significantly, with the *Socio Bosque* program experiencing a 71% reduction in available funds ($22.8 million to 6.62 million), puts the long-term financial sustainability of the program in severe jeopardy and could affect the price paid to local communities (*El Comercio*, 2019). According to Krause and Loft (2013), the sliding scale was implemented as a political decision to maximize the limited budget available, as well as a means of incentivizing smaller landholders, particularly those of the *páramo* ecosystem, who found the original incentive payment insufficient when compared to other economic alternatives provided by the *páramo*, such as agriculture and livestock. In contrast, large landowners saw both the original and new incentive scale as beneficial to them since their land was

not used for the generation of income and went largely unused. The new payment scheme doubled the original incentive payment ($12.34 per hectare to $25.86) for collective contracts for *páramo* participants.

Table 18: Original *Socio Bosque* Incentive Payment

Original Incentive Payment Scheme		
	Individual Contract	Collective Contract
Hectares	Amount (USD)	Amount (USD)
1-50	30.00	30.00
51-100	20.00	20.00
101-500	10.00	10.00
501-5,000	5.00	5.00
5,001-10,000	2.00	2.00
>10,000	0.50	0.50

Table 19: Current *Socio Bosque* Incentive Payment Scale

Current *Socio Bosque* Incentive Payment Scale							
Individuals with more than 20 hectares in their total land title		Individuals with less than 20 hectares in their total land title		Communities in forests		Communities in *páramos*	
Hectares	Payment	Hectares	Payment	Hectares	Amount	Hectares	Amount
1-50	$30.00	1-20	$60.00	1-100	$35.00	1-50	$60.00
51-100	$20.00			101-500	$22.00	51-100	$40.00
101-500	$10.00			501-1,800	$13.00	101-900	$20.00
501-5,000	$5.00			1,801-5,000	$6.00	901-3,000	$10.00
5,001 – 10,000	$2.00			5,001-10,000	$3.00	3,001-10,000	$4.00
> 10,001	$0.50			> 10,001	$0.70	> 10,001	$1.00

MAE, 2013

Individuals or communities do not have any input on the amount of the payment, nor are they able to negotiate with the government to receive a better price. While many communities interviewed were grateful for and recognized the benefit of *Socio Bosque* incentive payments, it became clear to

me that criticism of the program and its payments were an underlying issue in each focus group and interview. Of the five communities that participated in this study, all recognized the importance that the extra income provided to both individual families and larger community development initiatives. However, the price of the payments was often criticized, with many people interviewed stating that the *páramo* ecosystem has much more economic value, but that they are resigned to accept the incentive payment price of the program even though they feel the price is unfair. "We would like them to pay more" (*Quisiéramos que paguen mas*) and "that they raise the price a little bit…it is very little" (*Que suban un poco…es muy poco*), were comments I heard often during focus groups and interviews in various communities.

These comments indicate that the economic value, as well as social, cultural and spiritual values that the communities place on the *páramo* ecosystem is more than the current price that MAE is willing to pay. One Tayta discussed the value of the payment in the following manner, "We should charge much more. Instead of us establishing the price, they put the price on us. The páramos cost much more than the meager payment they are giving us" (*debemos cobrar mucho más, en vez de poner el precio nosotros, ellos nos pusieron el precio. No es que nuestros paramos cuestan esta miseria)* (*Tatya* interviewed in Community 4, 2018-03-12). However, there was an evident conflict in this Taytas view of *Socio Bosque* as he went on to say, "Also, I should thank [President] Correa because no other president has recognized paying for conserving [the *páramo*]" (*también debo agradecer a Correa porque ningún presidente se ha reconocido esto a dar por conservar*). This specific quote shows the conflicting value that communities and the state place on nature, as well as a recognition within local communities that the state, in some way, through *Socio Bosque* values the historically marginalized and forgotten rural communities and the important *páramo* ecosystem. Local communities are not against placing an economic value on the *páramo*, which is illustrated by their comparison of the *Socio Bosque* payment to other economic activities carried out in the *páramo*.

The main reason community members expressed their dissatisfaction with the value of the payment was due to the fact that other activities, such as agriculture and livestock, provide more income over a shorter period of time. As one community member stated "What would be a fair price [for the *páramo*]? About $100 per hectare would be fair. That is what we make cultivating, even more. In

good times we have harvested and made profit…all the community, not just one person. The land is productive here and the price we receive from *Socio Bosque* is unfair" (*Que sería un precio más justo? $100 por hectárea sería justo. Eso es lo ganamos cultivando, aún más. En tiempo buenos si se ha cosechado y ganado…toda la comunidad no solo uno*) (*Tayta* interviewed in Community 4, 2018-03-12). This last quote captures local perceptions regarding the opportunity cost of protecting the *páramo*. Even if communities value the *páramo* more than the current price they receive, they are resigned to accepting the terms of the incentive payment even if they do not agree with the price since communities are unable to negotiate prices of the ecosystems they conserve. This lack of negotiation power of communities represents an exclusionary process within MAE that does not allow for community participation or inclusion of their views and values on incentive payments.

The prices listed above are imposed by MAE, and, while MAE does take into account the different ecosystems present in Ecuador, little flexibility or regional specificity of the incentive payment is present across the country. However, the case of the Shuar in the Ecuadorian Amazon suggests that some Indigenous actors do have the ability to negotiate. The Shuar have nearly 90,000 hectares in the program and receive over $450,000 in annual incentive payments for their contract of 20 years (*Socio Bosque*, 2019). This works out to approximately $5.00 per hectare, which is well above the $0.70 payment outlined in the payment scale. In contrast, the *Záparo* community of the same Amazonian rainforest region receives only $114,879 for their 83,542 hectares. Although the Shuar seems to be an isolated case that is not representative of overall negotiating power of communities, it does indicate that *Socio Bosque* seems to be open to adjusting the incentive payment based on the negotiating power of a community. The Shuar are the only community that seems to have been able to negotiate a higher payment. The Shuar's ability to negotiate a higher pay scale could be due to the location of the community in the strategic Amazon jungle that is home to large supplies of crude oil and minerals, as well as the Shuar's contribution to the 1995 Cenepa War between Ecuador and Peru, being called the "Warriors of Cenepa" (Long, 1995; AmazonWatch, 2017). Ecuador viewed the strengthening of the Shuar as a strategic way to protect their territory against Peruvian incursion and, since the Shuar had a sense of Ecuadorian identity, the Shuar settlements were important strategic buffers towards Peru (Brysk 2000: 141).

According to MAE, the current payment scheme focuses on solidarity between those who have more land and those who have less. Furthermore, MAE says that by using this payment scheme,

> "the incentive provided is calculated in the same way for everyone, without differentiating geographical location, the ethnicity of the owner, the type of ecosystem, the type of environmental service that the area provides, the type of land tenure, be it individual or collective. The only variable that determines the amount of the incentive is the number of hectares that an interested party is willing to place under conservation" (MAE, 2013: 23).
>
> *El incentivo que entrega está calculado de la misma forma para todos, sin diferenciar su ubicación geográfica, la etnia del propietario, el tipo de ecosistema, el tipo de servicio ambiental que el área brinda, la figura de tenencia de tierra sea individual o colectiva; la única variable que determina el monto del incentivo es el número de hectáreas que un interesado está dispuesto a colocar bajo conservación*.

This comment seems to contradict the reality of the payment scheme since MAE does differentiate between forests and *páramo* as well as individual and collective contracts in their current payment scheme. MAE goes on to state that this payment scheme "responds to a vision of solidarity between the different areas; those who, due to some market condition, have a greater option of receiving external financing, under the *Socio Bosque* approach, contribute in solidarity with other areas that do not present these opportunities, therefore, if this solidarity does not exist, their risk of disappearance increases" (*Esto responde también a una visión solidaria entre las distintas áreas; las que por alguna condición de mercado tengan mayor opción de recibir financiamiento externo, bajo el enfoque de Socio Bosque éstas contribuyen solidariamente con otras áreas que no presentan esas oportunidades, por tanto, de no existir esta solidaridad su riesgo de desaparición aumenta*) (MAE, 2013: 23).

It is not only Indigenous communities that realize the payments they receive do not compensate for their perceived or even real value placed on the *páramo* due to alternative economic activities. One higher level *Socio Bosque* official recognized that the program does not "signify much economically for the communities…we [*Socio Bosque*] have done little to reduce poverty" (*Socio Bosque no significa mucho para las comunidades en lo económico. Poco hemos hecho para reducir la pobreza*) (MAE Official interviewed 2018-03-22). Furthermore, the same official stated that community organizations must be strengthened, and *Socio Bosque* needs to become a platform for them to speak about environmental governance and climate change. However, the relationship with the state gives communities little to no capacity to provide input or negotiate the terms of the incentive payments.

During one interview conducted, a high-level, national *Socio Bosque* representative stated, Indigenous communities "do not have the capacity to be able to discuss public policies to negotiate tariffs or resource use. They are passive subjects, not actors in public policy" (*No tienen capacidad las comunidades para poder discutir las políticas públicas para negociar las tarifas o el uso de los recursos. Son sujetos pasivos, nos son actores de las políticas públicas*) (MAE Official Interviewed, 2018-03-22). The lack of participation of Indigenous communities in environmental conservation and local resource governance policies was evidenced in the various local solutions that were proposed in focus groups where communities discussed novel ideas for the financial stability of the *Socio Bosque* program or environmental conservation and long-term solutions to the continuing deterioration of the *páramo*. In two separate communities, members floated the idea of charging neighbouring towns and cities for protecting the *páramo*s, making the case that the city of Riobamba receives benefits free of charge from their protected *páramo*s and that the local water and sewage company - *Empresa Pública - Empresa Privada de Agua Potable y Alcantarillado de Riobamba* – should distribute profits to the community. Other communities expressed concern over the use of the water by a local cement company, *Cemento Chimborazo,* and suggested that the company provide more than just *caramelitos* (candies) for the children, but that they provide payment for using the water sources of the surrounding *páramo*s that form part of the land title of the community and the *Socio Bosque* program. One community member expressed the state's devaluing of local opinions and alternatives in the following way,

> "More than the money that the Ministry gives, it would be good to create alternatives, such as small businesses or tourism. If there is no publicity for tourism, for example, how will people come? We can use the incentive, but it isn't much. It is not enough for the things necessary to start a sustainable, small business for when the help of the [Socio Bosque] program ends. We need to increase local alternatives, such as tourism and small business…this way we can counteract migration from the communities to bigger cities" (*Tayta* interviewed in Community 5, 2018-04-30).
>
> *"Mas que la plata que da el ministerio sería buena que creen algunas alternativas, como microempresas. Si no hay publicidad para el turismo, por ejemplo, ¿cómo vendrán? Podemos usar el incentivo, pero no es mucho. No alcanza para hacer estas cosas necesarias de emprender microempresas al largo plaza que ayuda cuando el programa deja de funcionar. Necesitamos fomentar alternativas locales, como turismo y microempresas. Allí podemos contrastar la migración hacia las ciudades"*

Communities clearly see the *Socio Bosque* incentive payment as an option that complements long-term, sustainable alternatives for community development and progress. However, communities are also cognisant of a need to supplement the incentive payment with other

community development alternatives. Furthermore, some communities do not see the payment received from *Socio Bosque* as the main reason why they entered the program. As one *Tayta* explained, "we improved a bit [from the incentive payment] but we did not enter the program for money, but to conserve the *páramo*. We have realized that it is good to care for the *páramo*" (*Mejoramos un poco pero no lo hicimos por interés ni dinero. Metemos en el programa por cuidar el páramo. Hemos dado cuenta que es bueno cuidar el páramo*) (*Tayta* interviewed in Community 5, 2018-04-30). The evidence above suggests that state control over ecosystem pricing does not create the market-based system of incentives that free-market environmentalism propagates in theory. *Socio Bosque*, under the guise of a so-called economic policy and environmental conservation instrument, is the result of clientelism and arbitrary, bureaucratic prices, mandates, and regulations.

The evidence presented above shows that, in general, *Socio Bosque* incentive payments are implemented in a uniform manner. The communities that form part of this study were paid strictly according to the sliding scale. However, a number of observations about the incentive payment can be made. First, the difference in the payment between the *Socio Bosque* participants and the Socio *Páramo* participants is evident. Clearly, the Ecuadorian government places different economic value on the *páramo* ecosystem as compared to that of forests, and/or they see the opportunity costs of those living in and using the *páramo* ecosystem for livelihoods as higher than that of the Amazonian communities. When interviewed, a MAE employee stated that the incentive is higher in the *páramo*s because "water sources come from there…there are all of the water reserves of the country and it captures more carbon. In the forests, there are not as many water sources, but there is more oxygen". This comment reflects what Krause and Loft (2013) suggest, in that *Socio Bosque* incentive payments are insufficient to cover the opportunity costs of untouched *páramos* because these areas are easily accessible to communities and offer fertile land for agriculture.

Second, the above incentive payment scale indicates that large amounts of land receive smaller per hectare payments, which seems to favour smaller landholders providing larger per hectare payments to smaller conserved areas as compared to larger, communally owned lands. This payment scale is particularly detrimental to Indigenous communities due to Article 57 of the Constitution which

recognizes the collective rights of Indigenous communities and states that they must "preserve the imprescriptible property of their community lands, which will be inalienable, indefeasible and indivisible" (*conservar la propiedad imprescriptible de sus tierras comunitarias, que serán inalienables, inembargables e indivisibles. Estas tierras estarán exentas del pago de tasas e impuestos*). Also, in section five it emphasizes that Indigenous peoples have the right to "maintain possession of ancestral lands and territories and obtain their free adjudication" *(Mantener la posesión de las tierras y territorios ancestrales y obtener su adjudicación gratuita*). This means that under the Constitution, communal Indigenous lands cannot be divided or separated into smaller parcels. The communal land in Indigenous communities speaks to a larger historical and cultural aspect that *Socio Bosque* encounters in these communities. Since the time of the hacienda, plots above 3,700 meters above sea level where the *páramo*s are not distributed individually are considered a common good, which any member of the communities, even Indigenous people from other communities, can use. When buying the hacienda lands after the first and second agrarian reforms, the Indigenous communities divided the lower part, that is to say, the land used for crops and the raising of cattle, but they kept the properties of the higher areas undivided. Despite numerous attempts to divide the communal property, the idea of community preservation has been internalized among the members. "Some of the comrades want to distribute the lands of the higher areas. Advantageously, we are the majority that want to keep this common good intact," stated one community leader interviewed. Based on the communal idea of land and the fear of state appropriation various communities expressed concern that *Socio Bosque* was a government scheme to take away land. As one *tayta* explained, "many community members were against *Socio Bosque,* saying 'the leaders are going to sell the *páramo* to the state who is going to take the money'." Since communities are prohibited from dividing land and view communal land as an important part of environmental and cultural conservation and preservation, many of the communities involved in the *Socio Bosque* program received smaller amounts per hectare since most of their land consists of large communal plots. In the five communities that participated in this study, an average of 882 hectares of *páramo* per community formed part of *Socio Bosque.* In comparison, three individual *Socio Bosque* contracts that were analyzed had an average of 25 hectares. Using the incentive payment scale above, the average incentive payment per hectare would be $20.00 for the communities and $30.00 for the individuals. Data drawn from the actual contracts with the communities and individuals shows that the five communities and three individuals received an average of $24.57 and $37.34 respectively, with the highest individual being paid $60.00 and the lowest being $29.64, while the highest community is paid $29.48 and the lowest is paid $14.66.

These statistics show a clear difference in the compensation being paid to small individual landowners compared to large communally owned lands of Indigenous communities.

6.4 Controlled Spending – Planes de Inversion

Since *Socio Bosque* began, MAE has implemented various measures to control the distribution and spending of incentive payments. Why have these measures been implemented and how are these measures perceived by both MAE/*Socio Bosque* officials and indigenous communities? This section seeks to understand how officials in MAE perceived risk and measures for reducing risk within *Socio Bosque*. Also, this section will explore how indigenous communities perceive the incentive control measures. As discussed in the previous chapter, planning and monitoring are important requirements within MAE's accountability framework. Part of the planning and monitoring requirements for participant communities is a plan de inversion (PDI) or investment plan. *Socio Bosque* requires investment plans from all communities and individuals that are involved in the program as a means of tracking spending of incentive payments at the local level. However, the requirements for individual landowners and communities are drastically different. The individual plan is a survey where the partners explain how they will spend the incentive. In contrast, communities are required to provide a detailed investment plan in a participatory manner where, through a general assembly, all community members approve the plan. This plan must elaborate on previous work that demonstrates clear needs, problems, stakeholder analysis, and alternative solutions analysis (MAE, 2013: 25). Investment plans were not part of the first year of *Socio Bosque*, but in 2009 MAE saw a need to create a financial accountability framework. Over the years, these plans have become more complex as MAE has attempted to clamp down on misspent and missing funds. In recent years, the Ecuadorian government has asked the Comptroller General's office to investigate *Socio Bosque* and "non-transparent actions" surrounding the use of funds paid to partners (*El Universo*, 2019c). This investigation, which has been brought about by community complaints, suggests a lack of transparency, possible community conflict within the *Socio Bosque* participant communities, and a clear need for a financial accountability framework for incentive payments.

MAE has certain safeguards in place to prevent such corruption, but these requirements have not been enough to quell suspicion of corruption and misuse of funds. As one MAE representative

stated, "there were communities where the leaders took the money and did not give it to the people and the community had to report it to the proper authorities" (*había comunidades donde los lideres llevaron el dinero y no entregaron a la gente y la comunidad tuvo que llamar a las autoridades*) (Interview, 2018-03-26). However, the result of corrupt community leaders' mis-spending *Socio Bosque* funds meant increased bureaucracy and red tape for the communities as MAE implemented mechanisms to control the use of incentive payments. While more responsibility was placed on the communities in developing investment plans, very little assistance was offered by MAE in recovering stolen funds. After these cases came up, the same representative stated, "we carried out a technical review and we demonstrated to the communities that we deposited the funds and the result was the communities had to resolve the problem themselves through lawsuits" (*Nosotros hicimos una revisión técnica y mostramos los depósitos y resulta que la comunidad tenía que resolver el problema ellos mismos a través de demandas. Salimos a verificar, pero decimos a ellos que depositamos y no es nuestra responsabilidad tienen que hablar con los dirigentes*) (Interview, 2018-03-36). These quotes represent a situation where suspicion over community corruption has resulted in an overly-burdensome responsibility placed on *Socio Bosque* participants. This burden disproportionately affects indigenous communities who receive different treatment within government institutions. On numerous occasions, I was able to observe treatment of Indigenous communities by MAE officials in the *Socio Bosque* office. Community leaders who would sometimes travel for hours to submit required documents were met with short answers and even disdain from *Socio Bosque* officials. At times, leaders were made to wait for hours to have a brief meeting with *Socio Bosque* officials only to be told that they lacked the required documents and must return to the community or go to other government institutions to obtain the required documents.

Furthermore, the financial burden MAE's requirements place on a rural community stretches already limited resources and communities. A high-level MAE representative stated that the funds distributed to communities were intentionally called "incentives" and not "money" because Indigenous communities need to be incentivized. This representative also stated that "the communities wanted to spend the incentive on cultural programs and parties…if you give money to indigenous communities, nothing will happen. Now they are accountable to show what they have spent the money on. It is a monitoring mechaqnism that Socio Bosque has" (*Había aspectos culturales en que querían gastar la plata y fiestas…Si vos das dinero inmediatista a una comunidad no va a surgir nada. Entonces rinden cuentas para mostrar en que han gastado. Es un tema de monitoreo que tiene el Socio Bosque)*

(Interview, 2018-03-26). This quote suggests that Indigenous communities are lazy and need financial motivation to engage in environmental conservation efforts. It also shows that, from the state's perspective, Indigenous communities cannot be trusted with funds and will spend incentive payments on frivolous fiestas. As a result, from the state's perspective strict accountability measures must be in place to monitor incentive spending. While corruption within Indigenous communities and cases within *Socio Bosque* incentive payment system are present, this quote represents a general view within state institutions of the problems that can be created by injecting money into Indigenous communities without having accountability measures in place. In my experience of working with Indigenous communities, many communities have strict local accountability measures in place to ensure transparency and prevent corruption; like any other global ill, it is present within Indigenous communities but it is far from endemic.

On top of the above-mentioned investment plans, communities are required to provide legal receipts for every expense, which can be difficult for many communities who oftentimes operate under an informal economy, and when receipts are required, prices are increased due to the taxes owed. Participants are aware of these requirements at the local level and the extra burden they place on community members to track spending. As one individual stated, "the project obligates us to have receipts…accounting must be done, and these papers go to Quito" (*El proyecto nos obliga las facturas…hay que hacer rendición de cuenta y este papel va a Quito*) (*Tayta* interviewed in Community 2, 2018-03-18). One *mamita* in Community 5 explained that "we would earn more working the land because there are no receipts or taxes required and 1 dollar goes to the pocket. All of the *Socio Bosque* funds do not reach the family. We have to buy food with receipts and we can't do this at the local markets since they do not provide receipts." (*Ganariamos mas haciendo producir la tierra con ganado porque no hay facturas y un dólar va al bosillo. No llega 100% a la familia con el Socio Bosque. Tenemos que comprar comida y tenemos que mostrar factura…esto no se puede hacer compras en los mercados, porque no emiten facturas*) (*Mamita* interviewed in Community 5, 2018-03-26). Communities are also required to hire a third-party, registered accountant to officially submit their accounting documents to MAE. During my field research, I observed interactions between accountants, community members and MAE representatives while waiting for many of my visits with MAE representatives in the *Socio Bosque* offices. I could observe that most of the accountants were not local, Indigenous people, but represented the Mestizo community from the city of Riobamba. There would not be many, if any,

trained and registered accountants in the communities and, as a result, the communities are forced to contract accountants from the city. Risk management practices that are part of *Socio Bosque*, such as those outlined above, undermine the interests of local Indigenous communities, stretching the financial and human resources and capacities of these communities.

Provincial Level Analysis

6.5 Provincial Contracts: Collective vs Individual

With the previous sections providing a general understanding of national level statistics of the *Socio Bosque* program, this section will seek to understand similar statistics at the provincial level of Chimborazo. The statistics will help to provide a contextual understanding of *Socio Bosque* in the province. Chimborazo has 129 total contracts, 20 collective and 109 individual. These totals represent 4.6% of the number of total number of contracts signed in Ecuador, 4.2% of individual contracts and 10% of collective contracts. Chimborazo has the second largest number of collective contracts in the country, second only to the province of Esmeraldas. Chimborazo's 14,051 hectares represent 0.9% of the total countrywide hectares, while the 11,065 collective hectares and the 2,986 individual hectares represent .85% and 1.8% respectively. The 19,862 beneficiaries are only 11% of the national total and the 437 individual contract beneficiaries and 19,425 collective contract beneficiaries represent 4% and 11% of national totals respectively.

The provincial level statistics of the incentive payments in Chimborazo present similar patterns as those found at the national level. Community contracts represent 98% of beneficiaries, 79% of conserved hectares and 66% of payments. Meanwhile, individual contracts represent 2% of beneficiaries, 21% of conserved hectares and 34% of payments. Clearly, the individual contract participants represent a significantly lower number of beneficiaries, yet receive a much higher percentage of incentive payments. The difference in per beneficiary incentive payment results are even more dramatic than the national results. In Chimborazo, individual contract beneficiaries make over 20 times more than collective contract beneficiaries, $12.24 to $227.40.

Table 20: Chimborazo *Socio Bosque* Statistics

***Socio Bosque* Chimborazo Statistics**

Type of Contract	Hectares conserved	Annual Incentive (USD)	Beneficiaries		Incentive per Beneficiary (USD)		Contracts Signed
			Families	Total	Families	Total	
Collective	11,065	237,849	4338	19,425	54.82	12.24	20
Individual	2,986	121,227	116	437	1,045.06	227.40	109
Total	14,051	360,076	4454	19862	80.84	18.12	129

MAE-Chimborazo 2016 Statistics
Total beneficiaries include men, women and children

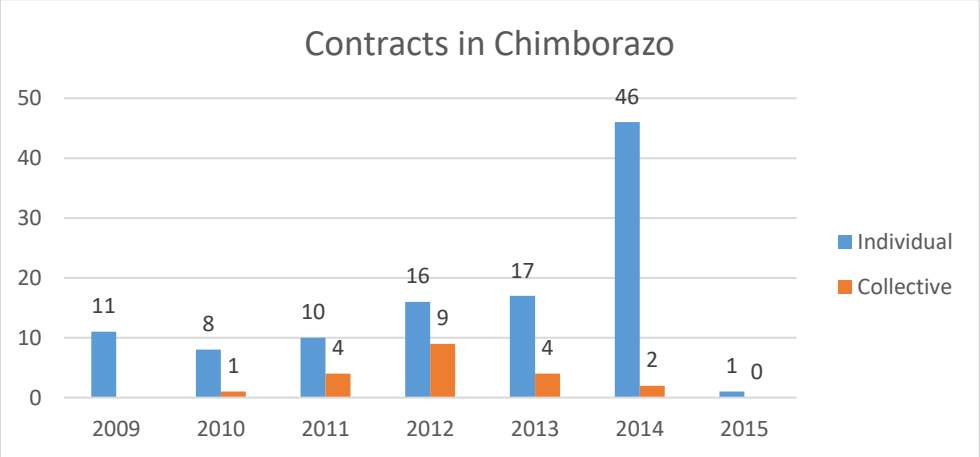
The difference in the number of individual contracts compared to collective contracts indicates a number of underlying points of analysis. The fact that individual contracts make up 84% of the total number of contracts in Chimborazo shows the importance of the historical context of the hacienda and subsequent land reform which resulted in unequal land distribution, the marginalization of Indigenous communities, and the continuation of clientelist State-community interactions. Land reform in the 60s and 70s was beneficial to large landowners since they did not give up the more fertile lands and were able to keep large swaths of land for their own benefit. Meanwhile, Indigenous communities were sold the more difficult mountainous terrain that is less productive. While communities have been able to produce in higher altitudes, production through monocropping and overuse of land has resulted in the exhaustion of soils and the need to move continually up the hillside, infringing on the *páramo* ecosystem.

The relationship between the Ecuadorian state and *Kichwa* communities is rooted in a clientelist relationship that serves economic and political elites at the expense and further marginalization of rural communities. This relationship has caused Indigenous communities to become suspicious of the motives behind government programs that, in the eyes of many communities, have underlying political, social, and economic goals that benefit those outside of the community. The differential treatment of Indigenous communities compared to individual participants in *Socio Bosque* can be seen in the fact that collective contracts conserve more hectares while, at the same time, being paid less than individual contracts who conserve fewer total hectares. This is the result of the sliding scale payment system implemented by *Socio Bosque*.

Furthermore, the large number of individual contracts suggests, at the very least, that in its initial phases in the province of Chimborazo, the program favoured individual landholders over communities. Individual landowners held an advantage over communities in a number of ways, but the most significant advantage can be found in their ability to interact with the bureaucracy of the Ecuadorian state. While the requirements for entry into *Socio Bosque* are similar for both individual and collective contracts, the ability either to have or to obtain the documents for Indigenous communities can be difficult. Furthermore, as previously mentioned, communities must have approval in the form of an assembly where a majority of community members approve entry into the program. This process can be long and drawn out and, often times, further complicates internal conflicts and power struggles within communities. One community interviewed complained of the internal conflict created by the decision to join the program, a decision that caused physical violence between community members. While this conflict has since been resolved, it exemplifies that *Socio Bosque* unearthed and even exacerbated underlying inter and intra community conflicts.

The disproportionately low number of collective contracts also shows the initial fears of Indigenous communities to join *Socio Bosque* when the program was rolled out in the province of Chimborazo in 2009 through Socio *Páramo*. The first individual contracts were signed in 2009, while the first collective contracts were signed in 2010. The chart below indicates that while a large influx into the program happened in 2012-2014, it is evident that in the initial phase of the Socio *Páramo* program of *Socio Bosque*, Indigenous communities were reluctant to join.

Figure 9: *Socio Bosque* Contracts in Chimborazo



The initial hesitancy of Indigenous communities, specifically those in Chimborazo, to join the *Socio Bosque* program is rooted in a suspicion that Indigenous communities hold towards the state and state-led initiatives, as well as a strained relationship that Indigenous communities had, and continue to have, with many state institutions. One community interviewed expressed serious concerns with MAE and their interaction with the women of the community in the Chimborazo Fauna Production Reserve, a national park. This conflict will be explored in greater detail below in the community analysis section. In the five communities that participated in this study, each community, to varying degrees, reported feeling fearful and distrustful about losing land for which they had struggled and fought to obtain basic title during the dissolution of the hacienda system. According to one community leader, "we nearly fought in the meetings. Some community members physically hit/struck me when they heard of the decision to join the program, but today the people understand and are aware of the benefits" (*Casi nos pegamos en las reuniones. Algunas personas me golpearon cuando escucharon la decision del Socio Bosque, pero hoy la gente entiende y se dan cuenta de los beneficios*) (*Tayta* interviewed in Community 4, 2018-03-12), highlighting the possibility that the arrival of *Socio Bosque* has unleashed dormant fears and conflicts within the community. Another *mamita* expressed the community's hesitancy to enter *Socio Bosque* because she thought it would eliminate livelihoods based on livestock, such as cows and sheep. We had livestock and sheep in the paramo and from this we lived…..what will we eat if we enter Socio Bosque. That is why we did not want to, but now we are content" (*Sabíamos tener ganado y borregos en el páramo y con eso vivíamos…De que vamos a comer si entramos al SB. Por eso no quisimos. Pero ahora estamos contentos*) (*Mamita* interviewed in Community 3, 2018-03-26). "What will we eat if we enter *Socio Bosque*" was her initial concern, a valid concern considering that communities enter into a 20-year contract with the state which, according to the rules discussed in the previous chapter, cannot be broken.

Furthermore, communities saw *Socio Bosque* as another political project of the state. During interviews communities expressed this concern in various ways with comments such as, "the President is in charge of *Socio Bosque*" (*El presidente de turno se encarga del programa Socio Bosque*). When discussing how industries that use the *páramo* do not pay for its use, one community member stated the following,

> "because many times these acknowledgments go through [government] institutions and nothing comes to the communities. Not only do we take care

> of the *páramo*, we take care of the water sources that go to the cities. Not even city authorities recognize us. If the authorities were aware, they could get votes and recognize the conservation of the *páramo*, but it doesn't happen. Go see the roads we have because the authorities don't want to help us. Management does not help us. Why? On the one hand it has become politicized, if [a community] does not belong to [President] Lenin or [Ex-president] Correa, there is nothing". (*Tayta* interviewed in Community 4, 2018-03-12).
>
> *"Porque muchas veces estos reconocimientos pasan por medios de instituciones (gubernamentales) y a las comunidades no llega nada. No solo cuidamos la paja y las plantas, cuidamos las fuentes de agua que van a las ciudades. Ni las autoridades de las ciudades nos reconocen. Si fueron consientes las autoridades, podrían captar votos y reconocer la conservación del páramo. Pero no sucede. Anda a ver los caminos que tenemos porque las autoridades no nos quieren ayudar. Gestiones no nos ayudan. ¿Por qué? Por un lado, se ha politizado, si no pertenece a [Presidente] Lenin o a [Presidente] Correa, no hay nada."*

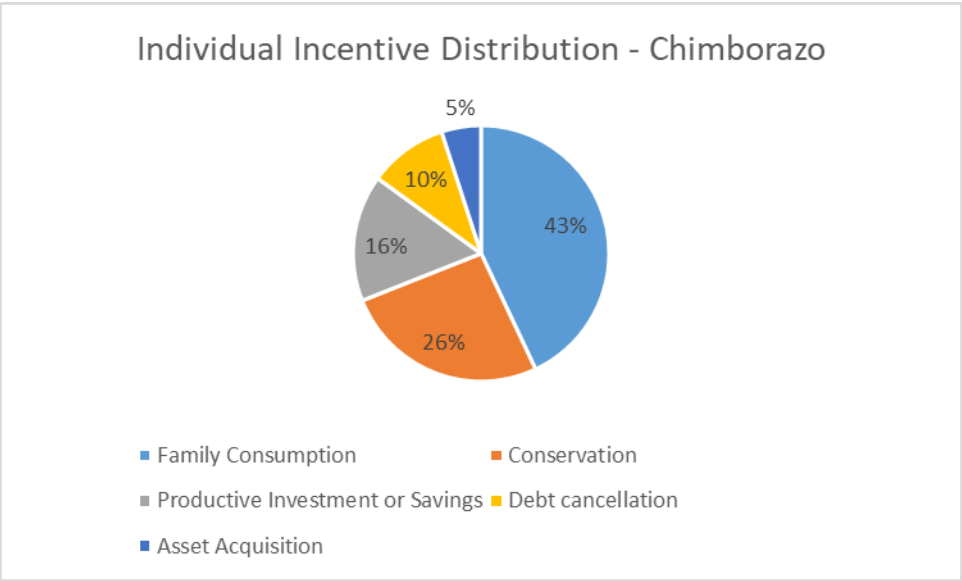
This comment indicates an underlying clientelism that is part of Ecuadorian social and political life and, for this particular individual, clientelistic mechanisms failed to achieve the state's goal of political manipulation. Furthermore, the quote shows that communities have an awareness of the clientelistic relationship they have with the state and that they view it as part of the political process in which they are resigned to work to achieve their goals as individuals and communities. However, communities do not always accept the incentive pay scale begrudgingly, but they do so voluntarily and, frequently, thanking local and national leaders. "we thank our community leaders because sometimes we do not believe" (*agradecemos a nuestros dirigentes porque a veces sabemos no creer*) (*Mamita* interviewed in Community 3, 2018-11-22), stated one *mamita* during a focus group. The state-community relationship and the clientelism that is rooted in the hacienda system helps to explain why communities interviewed would disagree with the price of the incentive, while at the same time thanking then President Correa for "his initiative (*Socio Bosque*) because no other President has paid attention to the *páramo*" (*tambien debo agradecer a Correa porque ningún presidente se ha reconocido esto a dar por conservar el paramo*) (*Tayta* interviewed in Community 4, 2018-03-12). This comment epitomizes the view of the state that Indigenous communities have, one where the benevolent landowner (the state) is bestowing undeserved blessing upon them which they do not deserve and to which they have no right. The community must simply smile, be thankful, and accept the gift without question. As Lyons (2005) notes, state hegemony and governance are not limited to violent or physical coercion; rather, often consent, persuasion, and coercion are indistinguishable as communities engage with state-led initiatives in search of viable economic livelihoods. In the case of *Socio Bosque*, communities recognize the benefit the incentive payment provides for their household incomes and

community development projects. As a result, they choose to engage in projects that, in their own words, are unequal and unjust, suggesting that Indigenous communities are not passive subordinate groups to hegemonic ideologies.

6.6 Distribution of Incentive Payments

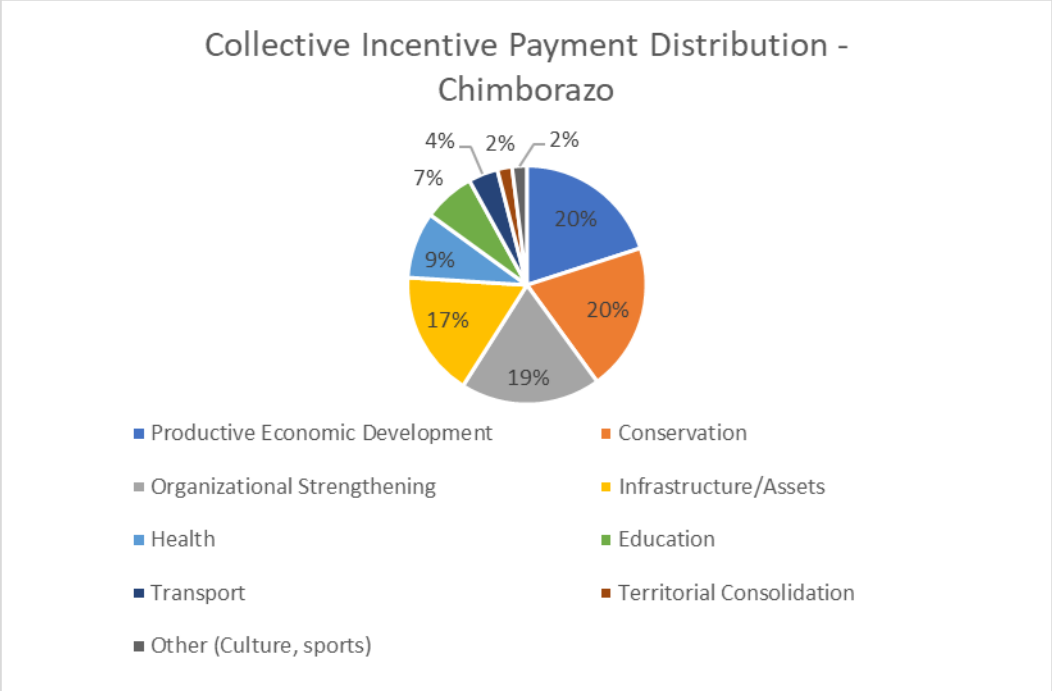
Even with the seemingly unequal incentive payments, Indigenous communities have chosen to participate in *Socio Bosque*. The following section's main objective is to understand how communities spend their incentive payments. I will begin with a macro-level, provincial analysis of incentive payment spending in the province of Chimborazo and subsequently turn to the specific spending of the five communities that participated in this research. Each community investment plan must clearly outline how the community will spend the incentive payment under four specific categories: conservation, productive economic development, social and cultural development and organizational strengthening. Individual contracts are not held to the same standards, but MAE has quantified their spending in the following categories: conservation, family consumption, productive investment or savings, debt cancellation, and asset acquisition. The chart below indicates how individual landowners involved in the *Socio Bosque* program in Chimborazo have spent their money. Family consumption is the main expense for individual participants, while conservation is also highly prioritized.

Figure 10: Incentive Payment Spending Distribution: Individual



In comparison with individual participants, communities spent their incentive payments in different areas. The following graph from MAE has divided the spending of incentive payments into more specific categories to include transport, education, health, territorial consolidation, and infrastructure/assets. This provides an even further understanding of how communities are spending their incentive payments at the provincial level.

Figure 11: Incentive Payment Spending Distribution: Collective



MAE 2017 Taller de evaluación y propuesta Chimborazo

Social and cultural development has been broken down into five different categories. However, based on the investment plans analyzed, health, education, territorial consolidation, and other would be considered cultural and social development. Transportation would be considered part of organizational strengthening and depending on the exact expense, infrastructure/assets would be either productive economic development or cultural and social development. Therefore, productive economic development was 20% of incentive payments, social and cultural and development was 20%, conservation was 20%, organization strengthening was 23%, and infrastructure/assets was 17%, which could be either productive economic development or social and cultural development.

For example, the construction of a church building with *Socio Bosque* funds, which happened in one community, would be considered social and cultural development, while the construction of a milk processing plant, which also happened in another community, would be considered productive economic development. These statistics indicate a relatively even distribution of the incentive payments in all categories at the provincial level. However, when factoring infrastructure/assets, both productive economic development and social and cultural development would increase.

6.7 Community Level Analysis

I will now turn to a micro-level analysis of each community that formed part of this research to understand how the five participant communities prioritized the spending of their *Socio Bosque* incentive payment. The largest number of hectares conserved in the five communities of the study was Community 3 with 2,573. Community 3, along with Community 1, offers unique cases since the land that is part of the *Socio Bosque* program is also part of the *Reserva de Producción Faunística de Chimborazo* (RPFCH – Chimborazo Wildlife Reproduction Reserve) which is part of the *Sistema Nacional de Áreas Protegidas* (SNAP - National System of Protected Areas). Created in 1986, this reserve covers more than 58,000 hectares in three different provinces – Chimborazo, Bolivar and Tungurahua – and protects the area surrounding the mighty Chimborazo Volcano. Since communities owned the land well before the creation of the reserve, they have rights to land and resource use within the park.

However, during interviews in both communities, participants expressed a tenuous and strained relationship with MAE in regard to their participation in the management of and benefits received from the reserve. As one participant explained,

> "sometimes MAE works against us. The women in our community sold handicrafts in the reserve and MAE puts clauses and limits on their work saying they could not sell. Then, MAE brings people from other provinces to sell their goods in the reserve. They bring other people to sell in the reserve. They bring others to compete with our women…they made our women clean [the bathrooms]. It is an abuse of the women that go to sell" (*Tayta* interviewed in Community 1, 2018-4-30).

> *"A veces los funcionarios del MAE nos sirven en contra. Porque nuestras mujeres vendaban arriba en la reserva. Y MAE pone las cláusulas y los limites diciendo que no pueden vivir. Trae otras personas de otras provincias para vender en la reserva. Traen otras personas para competir con las ventas de nuestras mujeres… hacen que nuestras mujeres limpian. Es un abuso a las mujeres que van a vender".*

These comments portray a strained relationship between the community and MAE surrounding the management of the Chimborazo Reserve and to the benefit of the community from the organized conservation of their land as a nationally protected area. The examples of Community 3 and Community 1 show the complexities of environmental governance and conservation among varied set of local, provincial, and national actors and stakeholders. The table below shows the incentive payment, hectares conserved, and number of beneficiaries for each of the five communities. This information was gathered from incentive payment plans and original contracts between MAE and each community.

Table 21: Five Participant Community Incentive Payment Analysis

Study Participant Communities							
Community	Hectares conserved	Annual Incentive (USD)	Incentive per hectare	Beneficiaries		Incentive per Beneficiary (USD)	
				Families	Total	Families	Total
1	683.57	16,671.4	24.39	17	65	980.67	256.4
2	316.31	9,326.2	29.48	42	100	222	93.26
3	2,573.7	37,735	14.66	57	118	662.01	319.78
4	418.95	11,379	27.16	120	350	94.82	32.51
5	420.71	11,414	27.13	18	72	634	158.52
Total	4,413.24	86,525.6		254	705	340.65	122.73

The average annual incentive per family of the five communities is $340.65 USD, while the average per beneficiary is $122.73 USD. There is discrepancy with Community 4 receiving the least amount per beneficiary and Community 3 receiving the most with respect to the others. Community 3 has the most hectares invested in *Socio Bosque* and an explanation for this could be that, due to its proximity to the Chimborazo Volcano and the national reserve, this community has had extensive interaction with MAE and international finance from external NGO programs and projects.[13]

[13] Community 1 and 3 have participated in various state-led and international development projects, such as a school building, livestock rearing, agricultural production, woman's enterprise (weaving), and community eco-tourism, dating back to 1988 (see Liutkus, 2006). In 1997, the Canadian International Development Agency (CIDA),

Compared to the provincial level, these communities received substantially more per family and per beneficiary - $340.65 (Provincial) to $54.82 (National) and $122.73 (Provincial) to $12.24 (National) respectively.

One benefit of the incentive payment plan is the flexibility that MAE allows within this scheme. While there are certain restrictions, communities have significant freedom on how they can spend their incentive payment. The five categories that MAE uses to lump community incentive spending through investment plans leave room for interpretation and within the communities studied there was a variety of items that were purchased, ranging from cows and pigs to televisions and stoves. Some communities decided to divide the yearly incentive payment among themselves and spend their individual money as they see fit within the parameters set by MAE. However, even in this model, individual families are restricted to the above-mentioned categories and must provide receipts for every purchase, be it clothing, school supplies, or the purchase of animals or seeds for agriculture. The tables below outline the investment plans (PDI) over an eight year period for each of the five communities who participated in this study.[14]

As the table indicates, during this time period, activities and spending under social and cultural development was nearly 60% of the incentive payment totals, while productive economic development was close to 33%. Organizational strengthening and conservation lagged far behind with 5.5% and 2.4% respectively. For an environmental conservation program, it is interesting to note that the conservation category has not been a priority for incentive payment spending, but for individuals interviewed, both in the state and in Indigenous communities, conserving the environment through *Socio Bosque* was a priority. Until 2017, communities did not often spend funds within the conservation category. From 2011 to 2016 only $6,400 was spent under the category of conservation, representing 1.7% of the total incentive payments paid to all five communities in this same time period. The community that has spent the most on conservation is Community 5 with approximately 10% of their overall budget from 2011-2018 spent on conservation. Combined with a

through Scarborough Missions and CECI (Canadian Centre for International Studies and Cooperation), provided $78,000 CDN to help the centre. https://www.scarboromissions.ca/study-guide-1-the-struggle-for-freedom

[14] Two communities entered Socio Bosque in 2011 while the remaining three became a part of the program in 2012.

lack of spending in the category of conservation, I did not observe fencing or signs clearly delineating the conservation area in any of the 5 communities we visited, suggesting that none of these communities have followed *Socio Bosque's* urging in this matter. In recent years, MAE has begun to impose spending within the "conservation" rubric, which has been spent on signage and clearly delineating the conservation area. Exactly how this constitutes conservation is unclear, but it does suggest that MAE sees conservation as an untouched ecosystem or environmental space that is clearly privatized and not to be used for any other activities.

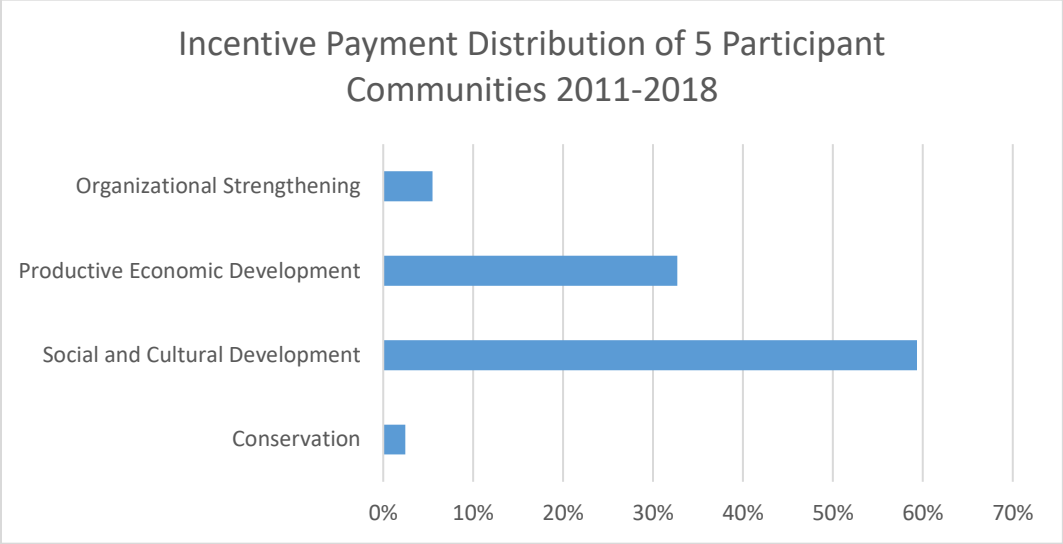
This evidence would suggest that communities have not valued the conservation of the *páramo*, at least the category as it is described by *Socio Bosque* as formal delineation and signage, as a valid channel or expense for their incentive payments, but communities did not violate the terms of the agreement with MAE. In various conversations with community members and leaders, protecting and conserving the *páramo* was clearly a priority and no evidence of community members violating the terms of the *Socio Bosque* contract was found. Since 2017, *Socio Bosque* pushed communities to spend more of their incentives in conservation of the *páramo* with activities such as enclosure of the conservation area with fencing, signs posted in and around the area stating that this section of the *páramo* is part of the *Socio Bosque* project, and, in a few cases, providing access to firehoses near the conservation area in case of wildfires. However, during interviews, focus groups, and community visits, there was very little evidence of the communities violating the terms of the *Socio Bosque* agreement by engaging in prohibited behaviour in the conserved area, meaning that communities may not view a formally designated conservation area as important, but they continue to conserve the *páramo*. Even with increased pressure from *Socio Bosque* to spend more on conservation by clearly outlining the conserved area with fencing and signs, the conservation category was only 3.89% of the total incentive payments in 2017 and 2018. Therefore, it would seem as if Indigenous communities do not prioritize conservation as an area of spending and see their incentive payments as ways in which they can increase their social, cultural, and economic capital and well-being ahead of further, more formal ways of conserving the *páramo*.

Table 22: Incentive Payment Distribution of 5 Participant Communities (2011-2018)

Total distribution of the 5 communities (2011-2018)

Conservation	13783	2.44%
Social and cultural development	334666	59.36%
Economic development	160093	28.40%
Organizational strengthening	30988	5.50%
Total	563792	

Figure 12: Incentive Payment Distribution of 5 Participant Communities (2011-2018)



These statistics differ from the provincial figures in that the five communities of this study spent the incentive payment on social and cultural development more than any other category. However, this difference can also be attributed to how MAE categorizes incentive payments. When incentive payments are spent on things like televisions, stoves, or other household items, these are considered within the social and cultural development category.

Below a detailed analysis of each community spending plan will be provided. This information was gathered from various *Socio Bosque* documents given to me from MAE. These documents included individual community investment plans and monitoring and evaluation reports. It is important to note that in some instances the information was gathered from a number of different documents. On a few occasions, it was difficult to gain a clear understanding of when payments were made and

exactly how those payments were spent. However, most of the information below provides a clear understanding of how the yearly incentive payments were spent.

Table 23: Community 1 Incentive Payment Spending

Community 1										
Category	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**		
Conservation							100	500	600	1%
Social and cultural development		8335			15671	17		8335	32358	33%
Economic development		8335	8250	7070		8400	8135	24307	64497	65%
Organizational strengthening			85	1300			100	200	1685	2%

Community 1, divided only by a highway with Community 3, entered the program in 2011 and began to spend its incentive payments in 2012. Many carry-forward payments make it difficult to comprehend exactly how and when the incentive payments were spent. Therefore, there may be some cross-over in the spending outlined below from year to year. In 2012, the payments were spent on agriculture ($8,335) and "funds for food and the elderly" ($8,335). As one elderly *mamita* explained, "I don't have a husband. He died 29 years ago. We as women, God pay you, have livestock and feed for animals, clothes, and whatever small things we can buy. We also have food. I am happy with the money. It helps me to supplement my income" (*no tengo marido ya se murió y me quede 29 años viuda. Nosotros como mujercita Dios le pague teníamos ganaditos, hierbitas, pasto para los animalitos, ropita, cualquier costia ya compramos. También para alimentos. Estoy feliz con esa platita)* (*Mamita* interviewed in Community 1 2018-04-30). The 2013 payments were spent on a *caja comunal* (micro-credit fund) where 15 individuals received $550 loans. However, a detailed account states that these loans were used to purchase cattle for each of the participants. In 2014, the incentive payment was spent on purchasing "household materials for community members". However, under the receipts for that same period, $7,070 was used to purchase ($7000) and transport ($70) wood, while the $1,300 was used to purchase a laptop and camera for the association. In 2015, the same purchase of household materials was made. During focus groups, it was explained to me that these funds were used to purchase specific materials, such as wood, that were needed to make basic repairs to various houses in the community and that the entire community had agreed upon this purchase. The same can be said about the purchase of cattle. The community explained that they prioritized the most needy in the community to first receive these benefits. In 2015, the community planned to purchase

seeds, as well as food/health/clothing expenses for community members. In 2016, 15 community members received $560 which was used to purchase cattle for a total of $8,400. In 2017, $8,135 was spent on pasture, such as alfalfa, for community members to plant as future food for their cattle. A further $8,335 was spent on household goods for community members. The plan de inversion for 2018 provided expenses for signs to delineate the area under conservation, the purchase of household items, and the purchase of cattle, pasture, and fertilizer as the main expenses.

Table 24: Community 2 Incentive Payment Spending

Community 2										
Category	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Total**	
Conservation					100		105	501	706	1%
Social and cultural development					9306		1510	17796	28612	62%
Economic development		9326	9326				1920	1436	22008	37%
Organizational strengthening					120		170	200	490	1%

Overall, Community 2 spent their incentive payments in similar fashion to the previous communities with most being spent on either social and cultural development or economic development. However, they were the community that spent the most on social and cultural development. The reason for this is that the main expense was construction materials used for a community centre. In 2012, Community 2 bought improved dairy cattle and forage for animals, which included seeds and organic fertilizer. The purchase of cattle is somewhat contradictory to conserving the p*áramo* since raising these animals can be highly damaging to the unique ecosystem. In 2015, signs were bought to place around the area under conservation, resulting in the $100 cost. The $9,306 under social and cultural development was spent on construction material, materials for an irrigation system and more cattle, as well as sheep. An interesting cost during this year was $2,400 for *víveres* (provisions or food) for community members. During discussion with *Socio Bosque* employees, I was told that these types of individual expenses were not permitted; however, it is clear that communities saw these types of expenses as valid and necessary. Various receipts were found that show a $1,000 for "professional services to elaborate reports" paid in 2015 to an accountant, while another amount of $3,723 was paid for "professional services rendered in 2014, 2015 and 2016 from the same accountant. This expense was not planned in the investment plan. In 2017, Community 2 received backpay for the missed payments during the 2016 fiscal year. The expenses during this year were

food and clothing for community members, construction materials, and cattle. The amount spent in 2017 was well below the amount received and, in these cases, communities are able to carry forward any balance and spend it in the following year. The planned expenses for 2018 include food, clothing, a camera, construction materials, cattle, and administrative/accounting costs.

Table 25: Community 3 Incentive Payment Spending

Community 3										
Category	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Total**	
Conservation							1933		1933	1%
Social and cultural development		37515	17100	34200	17100	15743	54915		195424	89%
Economic development							12693		12693	6%
Organizational strengthening			1767	1767	1767	2100	2077		9478	4%

In 2012, Community 3's first PDI outlined the creation of an emergency fund for the 19 founding members of the association. This emergency fund was to be used for medical, food, or other emergency expenses. The majority of the funds for 2012, $34,500, was to be put towards the emergency fund. Detailed receipts show that these funds were spent on the purchase of chickens, furniture, clothing, food, construction materials, agricultural inputs, mattresses, kitchenettes, medication, and livestock. The individual costs for some of these items ranged from as little as $5 (agricultural inputs) to as much as $900 (cows). From 2013 - 2015, the incentive payment was spent in a similar fashion ($34,200 per year), which is placed under social and cultural development. This expense was confirmed in focus groups where community members stated that the funds were evenly distributed to each family in order to buy basic needs, such as food and other household items. The 2016 plan de inversion had a carry-over amount and details the specific amount received per founding member that year, $2,695, with the rest of the funds being spent on accounting and administrative costs. However, because of the lack of funding from *Socio Bosque* for 2016, these expenses were carried over to 2017, resulting in the large amount above. Other expenses in 2017 include vehicle repairs ($3,399), construction materials ($4,520), and home appliances ($8,308). The 2018 plan de inversion shows similar expenses for the year. Community 3 was the only community where expenses, such as home appliances and furniture, were found. The community stated in focus groups that the funds were divided equally among each community member and they were allowed to spend on what they felt they needed, as long as they provided receipts. When I asked

MAE representatives if this was or should be the case, they stated that the incentive payments should not be handed out as cash to be spent as community members wish, so it would seem as if communities have taken liberties with the norms laid out in the PDI expenses and that MAE has been lenient on purchases as long as communities provide receipts.

Table 26: Community 4 Incentive Payment Spending

Community 4										
Category	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Total**	
Conservation							1000		1000	1%
Social and cultural development			5651	9498	12583	3161	2150		33866	38%
Economic development	13068	16716					18872		48656	55%
Organizational strengthening	2000	542	131		538	430	840		4481	5%

Community 4 entered *Socio Bosque* in 2011, but the earliest investment plan is from October 2011 to October 2012. In the first investment plan from 2011, the community proposed a *caja comunal* (micro-credit fund), the restoration of the local church, and an administrative emergency fund. In 2012, money was carried forward from 2011 and the community was able to provide $16,716 in micro-credit to thirteen individuals ranging from $150 to $4,940. There is no indication on the specific expenses for which the credit was used by each individual. In 2014, the community began construction on the local church. While $9,498 was planned, only $5,651 was spent on construction materials. In 2015, with the carry-over from 2014, the community had excess funds and had main expenses of construction materials for the church and more micro-credit loans to community members. On this occasion, 71 community members received an equal credit of $284.33. The report also states that to date, the church was 70% completed. From 2016-2018, it is difficult to determine the exact amount of incentive payment received and spent, demonstrating the complexity of the implementation and monitoring of the *plan de inversión*. There were various copies of the *plan de inversión* and the *rendición de cuentas* (accounting) documents. What can be determined is that the community planned to spend their incentive payment on the construction of a milk collection centre and processing plant, which was still under construction when field research was conducted in 2019. Community members stated that more funds were needed to complete the building and that the local municipal government was also provided funding. In 2017, the community planned to

purchase signs to delineate the area under conservation which is a cost that is placed under the conservation category.

Table 27: Community 5 Incentive Payment Spending

Community 5										
Category	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Total**	
Conservation	4300					2000	1622	1622	9544	10%
Social and cultural development	7414	5,707	5,707		11414	8704	3717	3717	34966	37%
Economic development	1800	5,580	5.580	11,400	11414				35,774	38%
Organizational strengthening	1600	73				380	687	12114	14854	16%

Community 5 joined *Socio Bosque* in 2011. In that first year, the objectives outlined in the investment plan were the following: 1. Maintain and protect the conservation area; 2. Improve the sanitary conditions of the members of the community association; 3. Promote and improve livestock production in the association; and, 4. Improve the administrative and financial management of the association. Two specific activities were planned under objective number 1, which falls under the Conservation rubric. These activities included enclosure of the conservation area and cleaning of firehoses in the area. Objective 2 had the specific task of building latrines for association members. Objective 3 included the purchase of various seeds, such as clover and *pasto azul* (bluegrass), while objective 4 included training, the purchase of a table and chairs, and various administrative costs. In 2012, the major expenses for the year were $5,580 for livestock and $5,707 for food purchases, which were divided among community members. The same purchases were made in 2013 while in 2014 and 2015 the entire incentive payment was spent on purchasing cattle. In 2016, Community 5 began to pay community members for monitoring the conservation area. While each community member was obligated to monitor before, in 2016 they began to be remunerated for their work. Under Conservation, funds were also spent on signage for the conservation area. The $8,704 spent under Social and Cultural Development was used to purchase materials for an ongoing irrigation system that the community was building, which could be argued as economic development and not social and/or cultural development. In 2017, the main expense was the purchase of materials for the construction of an irrigation system. The construction and costs of the irrigation system continued into 2018's plan, but a major expense was a "bank loan payment for land of the

association" to the *Banco Nacional de Fomento* (BNF), a state-owned bank. It was explained to me that the funds used to pay the debt with the BNF dated back to the late 1990s where the communities used the loan to purchase land from the Riobamba Diocese, the owner of the hacienda. The loan was still outstanding and funds were used to pay the final payments to the BNF.

6.8 Conclusions

This final section will draw from the empirical data outlined above to draw broader conclusions about the distributional effects of the *Socio Bosque* program in *Kichwa* Indigenous communities of Chimborazo. From a methodological standpoint, associating expenditures with community preferences and priorities presented a number of challenges. First, community-based reporting varied significantly; "Community #1," for instance, received the highest payment per hectare (Table 5) but provided little in the way of detailed financial reporting. Second, ambiguous line items made it difficult to discern whether the purchases were being made on behalf of certain individuals or on behalf of the community. Food and *víveres* (provisions), for instance, may have been provided for certain groups of individuals, external visitors, community celebrations or a combination of all three. Finally, all of the communities had carry-overs, making it difficult to discern whether the expenditures were being reported for current or previous years. However, the data above does provide a rich account of how communities spent their incentive payments and conclusions can be drawn from this information.

The injection of money into local communities through PES programs does not operate within a vacuum with respect to the local context; power dynamics shape community agency, inclusion and participation. On top of local complexities, state-community power relations frame interactions and the distribution of funds further limits meaningful inclusion and participation of Indigenous communities. The findings of this chapter will be grouped into the following: 1) *Socio Bosque* does provide material benefits to participating communities, but those benefits happen within a wider context of inequality; 2) given the historical state-community relationships, the *Socio Bosque* incentive payment is seen as a "regalo" (gift) by communities instead of a derecho (right); and, 3) communities have spent most of the incentive payments on social, economic and cultural development, suggesting that finding long-term sustainable livelihoods are a priority for the communities.

An Unequal Payment

As discussed previously, the hacienda system in Chimborazo created social and economic inequalities that oppressed and marginalized Indigenous communities, making Chimborazo one of the poorest provinces in the country, with some counties reaching 90% poverty (INEC, 2014). These inequalities are inherently part of the *Socio Bosque* program, evidenced by the sliding scale payment which is disadvantageous to Indigenous communities and leaves little room for agency or negotiation in determining the price of their land and ecosystems, while at the same time benefiting individual landholders and marginalizing Indigenous forms of communal land ownership. The implementation of the incentive payment suggests little room for community resistance to the imposed payment scheme of *Socio Bosque*, in what can be deemed a "take it, or leave it" approach from MAE, with the exception of the Shuar community described above. Furthermore, community ideas about ways in which payments and incentives could be increased by charging larger cities, such as Riobamba, and national and international corporations for the use of water and the conservation of the *páramo* seem to be largely ignored as alternatives, suggesting that Indigenous perspectives around the private use of nature, land and resources do not form part of larger policy discussions at the local, provincial or national level.

Provincial data and statistics from the specific communities of this study indicate that Chimborazo and the five communities are representative of larger, national statistics in that community contracts represent a higher number of hectares conserved but receive a lower percentage of the incentive payment. However, in the case of Chimborazo and the five communities, the inequality between individual and community contracts is further exacerbated, highlighting the importance of social and economic historical contexts when implementing PES programs. The incentive payments in the five communities of this study show a variation in per beneficiary results. In general, all of the communities receive more than the provincial average of $54.82 (Family) and $12.24 (Individual). The disparity in average incentive payment within the five communities indicates that local historical context has positioned some communities more favourably than others, such as the case of Community 3 that has more communally owned land to enter into the program.

Furthermore, the *Socio Bosque* payment scale clearly benefits individual landowners over communities, which raises the following question: if poverty reduction and improved livelihoods are goals of PES programs, why do individuals form part of the program since they conserve fewer hectares and the impacts of receiving the incentive payment are limited to a family unit? In contrast, Indigenous communities conserve a larger number of hectares and the impact of the incentive payment reaches many more beneficiaries; yet these communities participate less frequently in the program and receive a reduced amount of incentive payments due to communal land ownership. As the overall data from Chimborazo suggests, the majority of incentive payments to individual contracts were spent on family consumption. Individual family consumption represents, at the very least, a demonstration of prioritizing individual or family needs over the needs of a larger community, which can run counter to *Kichwa* values that will be discussed in detail in the following chapter, as well as the idea that PES programs will help to alleviate poverty within Indigenous communities. That is not to say that *Kichwa* communities always act in an altruistic, communal manner, but that certain values underpin the interactions of *Kichwa* communities and a prioritized spending of incentive payments on an individual/family level seems to contradict these values. However, a greater understanding of the meaning of individual/family level spending and the economic and poverty alleviation impacts of *Socio Bosque* on participating communities goes beyond the scope of this analysis and leaves room for future research. It is also too early to determine if *Socio Bosque* has had a larger impact on alleviating poverty and improving Indigenous livelihoods.

The sliding scale payment scheme of *Socio Bosque* also ignores the cultural importance *Kichwa* communities ascribe to keeping lands communally owned, as indicated by the quotes from *taytas* and *mamitas* maintaining that the communal land of the *páramo* be kept intact. On top of the laws that prohibit division of communal land, maintaining communal land is highly symbolic for communities as it represents the culmination of a unified struggle that families and communities faced to gain title to their land in taking land from the hands of a single family or landowner in the times of the hacienda and returning it to the larger community. Division of land would be a step back in the eyes of many community members. Therefore, a

sliding scale like that of *Socio Bosque* fails to recognize and fairly compensate the importance of maintaining communally owned land in indigenous communities, further relegating Indigenous peoples to the margins of meaningful inclusion and participation in PES programs.

"Derecho" or "Regalo"

Each community that participated in this study stated that *Socio Bosque* has been economically beneficial, both individually and communally. While the communities recognize the incentive payments do not represent the true value they place on nature, those interviewed are grateful to be receiving any compensation at all for conserving the *páramo*. As indicated throughout this chapter, the state controls various aspects of the price placed on nature and the payments that participant communities receive through the *Socio Bosque* program. The price paid to communities is determined by the central state authorities and, as one ex-government official that was interviewed revealed, there was no exact calculation of the price to be paid based on actual ecosystem services. Rather, the price was established based on the existing MAE budget allocated to the *Socio Bosque* program. The way in which payments are calculated does not follow neoliberal notions of cost/benefit or a true valuation of ecosystem services that are part of free market-based environmentalism, suggesting that *Socio Bosque* is confined to larger constraints driving the price of nature.

The state's imposition of the price paid to communities does not represent a passive acceptance and participation of Indigenous communities that are forced into participating in the program. In fact, Indigenous communities actively choose to participate and demonstrate a significant amount of communal and individual agency in deciding to join the program. The five communities of this study each went through its own process of internal acceptance to enter the program, while neighbouring communities, sometimes offered the same terms from *Socio Bosque*, chose not to participate. This internal process varied among communities, but generally included an official presentation about *Socio Bosque* by MAE officials, usually with the support of local leaders; various internal community meetings to discuss and to answer questions about *Socio Bosque*; and a final vote by community members to receive a majority

approval to participate in the program. From there, communities and leaders would begin the application process with MAE.

However, participation of Indigenous communities within *Socio Bosque* is done within a historically unequal relationship between Indigenous communities and the Ecuadorian state, as well as the mestizo population. The imposition of the price by the state represents a hegemonic imposition of the state's valuation of the *páramo* in that the state's approach is not one of simple coercion, but it is embedded in practices and relationships that are material, social, and cultural (Lyons, 2006). These relationships establish or maintain domination by reproducing unequal power relationships between indigenous communities and the state. The work of Burgos (1997[15]) provides insight into the historical context of "take it or leave it" market prices imposed by urban, mestizo populations on rural, *Kichwa* indigenous people.

Both the state and Indigenous view the payment within the context of their relationship with one another, a context of inequality, marginalization and, often, oppression of indigenous worldviews and opinions. Perceptions of the state within Indigenous communities have been shaped by the hacienda system (Lyons, 2006; Bretón, 2014; Tuaza, 2014), while the state has continued patriarchal and clientelist relationships with Indigenous communities. The relationship between the Ecuadorian state and *Kichwa* Indigenous communities in Chimborazo is based on a social and historical context that devalues Indigenous worldviews and reinforces unequal power relations in the form of loyalty, hierarchy, and patronage, as seen in the context chapter. This relationship is best seen in the continuation of the practices of domination and marginalization that were present in the hacienda system. Instead of creating incentives, cash

[15] Hugo Burgos' work, *Relaciones Interétnicas en Riobamba,* provides an excellent exposition of the complexities of intercultural relations and the underlying racial and ethnic tensions between the mainly Mestizo urban centre of Riobamba and the Indigenous, rural communities. These tensions are very much present within programs like *Socio Bosque* through an exclusionary process of accountability that marginalizes the participation of Indigenous communities to one of inferiority and obligates them to accept the social and political framework of the Mestizo city centre. Burgos demonstrated aspects of "internal colonization" of the mestizo population over Indigenous communities in Ecuador. The move from the colony to independence signified a change of master for the Indigenous where the mestizo population took the place of the Spanish. Burgos uses markets to demonstrate the scenario in which Indigenous-mestizo relations are evidenced in mercantile transactions where the price of goods is controlled and imposed by the mestizo elite.

payments from *Socio Bosque* in this particular context take the form of "gifts". As discussed in detail in the context chapter, communities viewed hacienda owners as benevolent landowners who provided them with "regalos" for their labour, such as alcohol and a small plot of indebted land (Lyons, 2006).

In the Indigenous imaginary, a relationship based on "regalos" and reciprocity is rooted in the socio-historical context of not only the hacienda system, but the Incan empire that preceded it (Lyons, 2006, 2016; Estermann, 1998, 2015; Murra, 1980). Often, Indigenous workers would support strict and abusive landowners and miserable, slave-like work conditions in exchange for a small plot of land where they could live and farm (Lyons, 2006; Tuaza, 2014). In the context of state-led programs like *Socio Bosque*, the state has simply taken the place of the hacendado/landowner who supplies the gifts in exchange for loyalty (Tuaza, 2014). As a result, communities view the incentive payments that form part of the state-led *Socio Bosque* program as a gift, not a right or deserved compensation for conserving nature.

Sustainable Livelihoods: A Community Priority

The evidence presented in this chapter suggests that communities have prioritized economic, social, and cultural development when spending their *Socio Bosque* incentive payments. Within these categories, incentive payments went to purchase livestock, such as sheep and cattle. These investments provide an attractive livelihood option for families, but sheep and cattle can be extremely destructive to the *páramo* ecosystem (Hofstede et al., 2014b; Flores et al., 2012), suggesting a possible contradiction between the discursive commitment to protecting *Pachamama* by both the state and the communities and the way in which funds were being spent. Furthermore, the case of Community 4 indicates the difficulty of projects built by *Socio Bosque* incentive payments to provide long-term sustainable livelihoods to communities. Community 4's desire to build a milk processing plant came at a time (2018) when milk production and demand was at its peak and the government committed to a fair price structure, but COVID-19 has caused instability in the dairy sector, with many local producers dumping milk into the sewer (Ecuavisa, 2020). With the current difficulties of the dairy sector, the evidence shows that communities investments of *Socio Bosque* incentive payments in

areas that they feel provide long-term, sustainable livelihood solutions, are highly susceptible to economic fluctuations, making these investments a short term injection of funding that does not contribute to the long-term well-being or livelihoods of Indigenous communities.

Chapter 7

Nuestras montañas lloran: An Epistemic Struggle

7.1 Introduction

The previous two chapters explored the institutional and distributional effects of *Socio Bosque* and document that an institutionalized *Socio Bosque* has changed land use and resource management practices within *Kichwa* communities. While the distribution of incentive payments has provided material and economic benefits, these benefits take place within a context of inequality and the continuation of hegemonic ideologies that subsume and marginalize Indigenous communities. When I first started investigating the role of *Socio Bosque* in *Kichwa* communities, it became apparent that I needed to develop a clearer understanding of the cultural, religious, spiritual, and symbolic meanings of "resources" and "landscapes" in the Andean context. To understand these aspects of resources and landscapes, this chapter will explore the epistemic foundations of PES programs and contrast and compare those foundations with *Kichwa cosmovisiones* and connections to land and place.

The central aim of the chapter is to understand how PES programs interact with local understandings of *Pachamama*. This aim will be achieved by 1. describing the high-modernist/state bureaucratic epistemology of land use in PES programs; and, 2. describing local/community understandings of Indigenous Ecological Knowledge (IEK) and relationships with nature, specifically *Kichwa* perspectives. To accomplish these ends, I use interviews, focus group discussions, and participant observation, combined with secondary literature on Andean Indigenous *cosmovisiones*, to explore the intricate relationship the *Kichwa* peoples have with nature through living concepts, such as *Pachamama* and *sumak kawsay*. This chapter will analyze how these concepts reassert ties to land and place and, at the same time, contest colonial and capitalist capture of place in the form of "green grabbing" (Fairhead et al., 2012) through environmental governance programs like *Socio Bosque*. This Indigenous perspective will be compared to that of PES programs which, I will show, are based on a Scientific Forest Governance (SFG) perspective. The chapter will also explore the epistemic tensions between international institutions and environmental governance programs' definitions of ecosystems and local, Indigenous ways of living, being and doing found in the interconnected relationship between *runa* (man) and *Pachamama*. The following questions and sub-questions will help guide the analysis below:

1. What meaning and value do *Kichwa* communities assign to nature and natural resources
2. How does this meaning and value inform land use and resource management practices, and how has this meaning and value been affected by *Socio Bosque*?

3. How do the ways in which international environmental conservation efforts and state-led institutions define and describe ecosystems affect and interact with local, Indigenous, place-based understandings of nature?
    a. What policy changes have been implemented as a result of government definitions of ecosystems and how have these changes affected land use and resource management in *Kichwa* communities in Chimborazo?

The purpose of this chapter is not to create an imaginary dichotomy between different worldviews, those of Indigenous Environmental Knowledge (IEK) and Scientific Forest Governance (SFG), or to simplify either perspective. The two forms of knowledge are intricately linked and, at times, inseparable. As Agrawal states, "it is difficult to adhere to a view of indigenous and Western forms of knowledge being untouched by each other" (Agrawal, 1995: 415). The lines between the two ways of knowing and understanding the environment are not always clear and some aspects of modern-day scientific knowledge grew from local, Indigenous forms of living in and understanding the world (Berkes, 2018; Ellen et al., 2000). As Berkes notes, both Western science and Indigenous knowledge are based on observations of the environment, interpreting and knowing these observations and, finally, creating order out of disorder (Berkes, 2018).

A key area of focus for the chapter is the apparent contradiction between market-based approaches of environmental governance that emphasize separation of land and society, individual incentives and collective action and Indigenous worldviews that ascribe meaning to "resources" and landscapes - e.g. *Pachamama* - that emphasize responsibility and tradition and conceptualize alternative understandings of history, time, and community. Therefore, the goal of this chapter is to explain the epistemic underpinnings of each perspective in order to analyze the complex interactions between IEK and SFG and, more specifically, how these interactions affect the inclusion and participation of Indigenous communities in the implementation of PES programs. The questions above will guide the discussion by analyzing various ways in which *Kichwa* communities engage with their surrounding ecosystems that represent a relationship based on an epistemological understanding of nature (*Pachamama*) that connects ecosystems to individual beings who inhabit those ecosystems and the larger cosmos. By answering these questions, this chapter will indicate that the epistemic foundations of PES programs in the form of Scientific Forest Governance (SFG) do not only

contradict Indigenous Environmental Knowledge (IEK), but have, in fact, eliminated and erased traditional ecological knowledge and relationships with nature and natural resources.

7.2 Epistemic Assumptions of Scientific Forest Governance

This section will explore the epistemology of land use that underpins the Scientific Forest Governance perspective on nature. The section seeks to understand how this epistemology classifies and redefines landscapes and nature, specifically the *páramo* ecosystem, in order to legitimize various environmental conservation efforts, such as forestation, reforestation and PES programs. The section will show that state-led PES programs embody a high-modernist (Scott, 1998) epistemology which fundamentally changes local perceptions and use of land and resources and (re)classifies complex relationships between Indigenous communities and nature.

SFG redefines landscapes and nature through the framing of the natural world which "is influenced by our thoughts, concepts, ideas, ideologies and worldviews and these in turn are shaped through language" (Stibbe, 2015: 2). For Stibbe, the compilation of various discourses creates the "stories we live by" that are not "transparent descriptions of reality, but instead shape how we perceive reality" (Stibbe, 2015: 23). The stories told within the SFG frame nature around the basic elements that make up diverse ecosystems, elements that have, or can be made to have, specific economic value to humans. For example, SFG replaces the "term 'nature' with the term 'natural resources', focusing on those aspects of nature that can be appropriated for human use" (Scott, 1998). As a result, natural resources are reduced to quantifiable, measurable units that can be organized, managed, and governed by state institutions. Nature is seen as something that must be dominated and governed through measurable programs and policies that can demonstrate success. Part of the administration of ecosystems and ecosystem-dependent communities is carried out through environmental conservation programs that monetize and commodify nature through utilitarian underpinnings of SFG (Kopnina, 2017; Bayrak and Marafa, 2016; Gudynas, 2016; Dryzek, 2013). As discussed in the theoretical chapter, PES programs seek to provide financial compensation to local communities for safeguarding the ecosystem which provides a variety of services to the larger global community. In order for PES programs to conserve nature, they must first reclassify complex local ecosystems and surrounding communities as legitimate places for the pursuit of market-based incentive programs.

7.3 Classifying Nature, Land, and Resources: Seeing the Forest for the Trees and the Páramo Problem

One of the ways in which SFG redefines land and resources and the relationships communities have with each is how ecosystems are defined and classified, specifically defining the *páramo* ecosystem as a legitimate place for *Socio Bosque* and other environmental conservation and climate change programs. *Páramos* are defined as ecosystems where seasonal climates and soils favour the dominance of perennial grasses and other graminoids, occurring "mainly in the middle latitudes and also in areas of tropical and temperate high mountains above the regional tree line where generally similar environments and temperate biogeographic affinities occur" (Peart, 2008). For the most part, *páramo* ecosystems have little to no forest cover and the specific *páramos* of Chimborazo have limited natural forests. However, these unique ecosystems provide a variety of services, such as carbon storage and water regulation (Ross et al. 2017; Buytaert et al., 2012be; Célleri and Feyen al., 2009). *Páramos* also have significant cultural and spiritual meaning for Indigenous communities and provide income and livelihoods for them (Lyons 2006, 2016, Estermann 2012, Tuaza 2014, Ross et al. 2017). For international climate change and environmental conservation programs and goals that focus on curbing deforestation, increasing reforestation, and conserving forest ecosystems, the *páramo* ecosystem presents a unique challenge (Gibbens, 2018; Bastin et al., 2019; Carrington, 2019; Hoare, 2020).

While the term forest brings to mind a number of different images, it is important to understand how this term is defined within different global climate change and environmental governance strategies and institutions. The United Nations Framework on Climate Change (UNFCCC) defines a forest as a

> "minimum area of land of 0.05-1.0 hectares with tree crown cover of more than 10-30 percent with trees with the potential to reach a minimum height of 2-5 meters at maturity" (UNFCCC, 2001). The United Nations Environment Programme (UNEP) defines a forest as an "area of land of more than 0.5 hectares, with a tree canopy cover of more than 10%, which is not primarily under agricultural or other specific non-forest land use" (UNEP definition found in FAO, 2019a).

REDD+ uses the Food and Agriculture Organization's definition of forests which states that a "forest includes natural forests and forest plantations…with a tree canopy cover of more than 10

percent and area of more than 0.5 ha. Forests are determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 meters" (FAO, 2019a). Some authors have noted that these definitions are problematic when discussing REDD+ and PES strategies in *páramo* ecosystems like the ones found in Chimborazo (Parr et. al., 2014). According to the definitions above, the *páramo* is not considered a forest and, as a result, does not enter into official REDD+ interventions. Considering the importance of the *páramo* ecosystem to Ecuadorian watersheds, the exclusion of *páramos* from REDD+ is problematic. Although REDD+ recognizes the importance of the *páramo* ecosystem in contributing to emissions reduction and carbon storage, the UNFCCC negotiations on REDD+ have focused exclusively on forest ecosystems, placing the *páramo* outside of the short-term scope of REDD+ (FONAFIFO, CONAFOR and Ministry of Environment, 2012).

While the conservation of forests, such as those found in the Amazon, is important for global environmental governance, excluding *páramos* from REDD+ shows a clear use of specific language by international NGOs and governments. It is easier to sell forest conservation to a public audience when easily understood terms, such as forest, are defined and understood. Therefore, the *páramo* and the communities that depend upon this ecosystem are being erased from the debate about environmental governance and sustainable development. Although these communities and ecosystems are being erased from the larger discourse on environmental governance, they form part of the *Socio Bosque* program in Ecuador, raising questions as to why they are included in the first place?

The exclusion of the *páramo* from the discourse of global environmental governance strategies like REDD+ can be described as the "erasure of nature" (Stibbe, 2014). Discursive erasure denotes "the absence of something important – something that is present in reality but is overlooked or deliberately ignored in a particular discourse" (Stibbe, 2014: 585-586). Stibbe argues that the elements of erasure include an area of social life, such as environmentalism, a hegemonic discourse that encodes a particular worldview that is exclusionary, and a counter worldview that insists in including the erased aspect of their worldview (Stibbe, 2014: 586). By using the term forests as defined by tree cover, diverse ecosystems are reduced to their lowest common denominator. Since

PES strategies operate within a SFG framework that prioritizes market-based, utilitarian perspectives about nature, using terms like forest, trees, and coverage to define ecosystems reduces diversity to a singular, measurable stock or resource for human consumption and benefit. By treating living ecosystems as simple objects, "what is unique about life such as interaction and interdependence" is removed from the discourse surrounding environmental conservation (Stibbe, 2014: 590).

The most glaring example of the erasure of diverse ecosystems like the *páramo* can be seen in Ecuador's REDD+ action plan – *Bosques para el Buen vivir* (Forests for Living Well). The title itself indicates the discursive focus on forests, eliminating diversity in nature and replacing it with a uniform definition. While other ecosystems, such as *páramos* and mangroves, are mentioned in this document, they are used under the general category of forests and, as a result, create what Stibbe calls a discursive "mask" where diverse ecosystems have been erased and replaced with a distorted, more simplified version of themselves – forests and trees, etc.. Scott's (1998) work demonstrates the way in which the state has played a principal role in this discursive erasure through "high modernist" projects that organize complex systems, such as nature, into easily administered and quantifiable objects through scientific and technical processes (Scott, 1998). *Socio Bosque 's* monitoring manual epitomizes the state's attempt to organize nature through quantifiable definitions and clearly states that a "basic element to develop monitoring processes consists in characterizing the group that is going to be evaluated across time" (Socio Bosque, 2016: 8). The manual defines various ecosystems, such as "native forests" and *páramos*, without which the program is unable to set measurable and demonstrable goals to international conservation organizations. Furthermore, by using the term forest, international organizations, governments, and funding institutions are excluding or downplaying Indigenous *cosmovisiones* that see nature as a living, interconnected, and interdependent ecosystem. The word forest reduces nature to its most basic element of trees and the materials that can be produced from this commodity, discursively reducing nature to an anthropocentric view and placing nature under the domination and benefit of humans.

7.4 Policy Implications of a Forest Definition

Defining diverse ecosystems as forests has practical policy implications. The implications of reducing the definition of diverse ecosystems to forests are demonstrated in an online article written

by Rainforest Alliance CEO, Han de Groot (2019), where he advocates that world leaders ramp up their "investment in proven, natural solutions…more trees in the ground" (para. 7). The article goes on to state that "reforestation projects can also intersect neatly and positively with human systems—restored forests provide a renewed resource base and new economic opportunities for communities" (para. 9). Obviously, forestation and reforestation projects have become a mainstay in the climate change discourse. However, this view of combating climate change can have detrimental effects on unique ecosystems like the *páramo*. A systematic review of existing government policies and international conservation projects on forests and the environment reveals that how the state defines and, as a result, measures ecosystems has implications for subsequent environmental governance policies and programs. Forestation and reforestation projects can lead to the forestation of healthy grasslands (*páramo*) that were not forests to begin with. REDD+ prioritize this type of environmental governance strategies as they provide easily measurable results in the form of newly planted trees (Giller, 2014). Government institutions have implemented various forestation and reforestation projects in Chimborazo. These projects have planted eucalyptus and pine trees that have clear detrimental effects on the natural *páramo* ecosystem (Hofstede et. al., 2002, Vásconez and Ochoa, 2008). These projects represent what Jepson refers to as a "rewilding" narrative within environmental discourse which seeks "to restore ecosystem dynamics and functions at various scales often through the introduction of functional species" (Jepson, 2019: 126). In Ecuador, these types of projects are now taking place under a narrative surrounding the "re-greening" of Ecuador through a specific project *REverdecer Ecuador* which seeks to invest 330 million USD in conservation, bio-economy, sustainable cities, environmental education, forest management, and land use and reforestation (*Secretaría General de Comunicación de la Presidencia*, 2019).

The National Reforestation Plan represents a key state-led strategy that sees forestation and reforestation as a driving force to combat climate change, while MAGAP (Ministry of Agriculture, Livestock, Aquaculture, and Fishing) provides financial incentives to communities and private plantation businesses who plant pine and eucalyptus as reforestation. The MAGAP program, *Programa de Incentivos para la Reforestación con Fines Comerciales* (Incentives for Reforestation with Commercial Purposes), provides financial incentives to individuals and communities to generate primary material for the lumber industry, to reduce the dependence of communities on imported forest products and encourage development of the forestry sector through import substitution, to

promote product exports with greater added value, to contribute in the reduction of the indiscriminate use of the native forest, to incorporate lands with forests into the productive sector of the country and to stimulate and incorporate peasant communities in the establishment and management of forest plantations (MAGAP, 2014). Clearly, the priority of this project is to commodify forests for the generation of local incomes of forest dependent communities.

Forestation projects like the one promoted by MAGAP are not permitted above 3,500 metres above sea level where the fragile ecosystem of the *páramo* is found. However, there has been significant debate and empirical evidence surrounding the altitude where the *páramo* begins (Coello, 2012), and MAE's own definition of the *páramo* ecosystem begins at 3,300 metres and as low as 2,800 metres in some southern areas of the country (MAE, 2012: 30). The *Proyecto Páramo Andino* (Andean *Páramo* Project) states that forestation should not be done above 3,000 metres (La Hora, 2010), suggesting a contrast between the "official" classification and other local understandings and definitions of the *páramo*, while other research suggests that *páramos* are at increased risk due to forestation projects (Bond, 2016). Statements from the *Proyecto Páramo Andino,* such as the one above, show the complications surrounding the definition of the *páramo* ecosystem: "for effects of the forestation and reforestation program, the limits are 3,500 metres above sea level in the North and 3,200 metres in the South of Ecuador….all of this is *páramo*" (Coello, 2014: 139). Even when native species of trees are used, such as the *polylepis racemose*, they can have negative effects of water sources and function (Segovia-Salcedo, 2011).

The debate surrounding forestation in the *páramo* ecosystem is clearly ongoing, but in the meantime forestation projects continue. In 2014 in Chimborazo alone, 2,300 hectares of pine, eucalyptus, and cypress were planted (El Telegrafo, 2014). However, these forestation projects have caused conflict within Indigenous communities who argue that these types of projects have negative environmental impacts on the *páramo* ecosystem and have filed lawsuits citing a violation of the "rights of nature" enshrined in the constitution (El Comercio, 2014). According to Ross et al. (2017), more than 75 per cent of *páramo* ecosystems in the surrounding Chambo Basin were converted to agriculture and forest plantations between 1979 and 2014 (Ross et al. 2017). Most of these were the result of import substitution and export-led development policies that promoted forest plantations (mainly pine and

eucalyptus) and commercial agriculture during the 1970s, 80s and 90s (Ross et al. 2017). They were also the result of a agrarian reforms in the 60s and 70s that pushed small-scale farmers and herders into higher elevations (over 3500 meters above sea level).

The use of the term "forests" as a blanket definition for the diverse ecosystems in Ecuador, such as the *páramo*, creates environmental governance and forest and reforestation strategies that focus on measurable results related to this definition. As a result, the *páramo* ecosystem and communities that depend on this ecosystem are negatively impacted. Due to the negative effects of pine and eucalyptus plantations and forests, the land becomes unusable since the thin layer of arable soil quickly dries up and entire communities have become desertified. Areas that were previously dedicated to agricultural and livestock practices have been reduced to blowing sand scattered with the occasional pine or eucalyptus tree. This became evident to me in one community I have often visited during my time in Chimborazo.

San Miguel de Pomachaca is a community that formed part of the former *Totorillas* Hacienda[16] that I first visited in 2010. Upon entering the community, I noticed that the amount of arable land in the lower hills was minimal. Various community members have explained to me throughout the years that a combination of monocropping, use of agricultural inputs and chemicals and forest and reforestation projects have left previously arable land surrounding the community in a desert-like state. Many elders in the community talk of a small lake that existed in a now dry area close to the community. In many other communities, the agricultural and livestock frontier has pushed higher into the *páramo* ecosystem due to a number of factors, but the factor of desertification of land linked to (re)forestation projects and over-cultivation is clear. The community of *Chismaute*, a community I first visited in 2009, is an example of the increasing demand and pressure agricultural activities have on the *páramo*. When I first visited *Chismaute*, which is situated between 3,600-4,000 metres above sea level, the majority of the land surrounding the communities of *Chismaute* was uncultivated. In the following years, I have noticed crops at higher altitudes until my visit during this field research

[16] See Tuaza (2017, 2014) for a detailed account of the *Totorillas* Hacienda

where I observed crops being cultivated in areas that were previously untouched *páramo* above 3,800 – 4,000 metres.

While community members recognize the positive economic impact that (re)forestation projects have on the community, many individuals were quick to point out that the benefits were minimal and considering the negative environmental impacts, such as drying up of water sources, they will no longer continue with such projects. In a community that formed part of MAGAP's forestation program of community land, one *Tayta* interviewed during my time in the field recognized the positive economic impact that forestation programs had on his community, but, at the same time, he was quick to point out that the trees have negatively impacted water sources, recognizing that some sources had even dried up. Furthermore, he noted the lack of institutional support from MAE or MAGAP when the community attempted to sell the trees that were planted; moreover, reduced prices of lumber on the national level caused the community to lose out on significant amounts of money. A second *Tayta* interviewed gave the following account of his community's experience with forestation programs:

> "At first, it was hard work. The first planting took three months work every day. We even hired people from outside to help, but I am saddened by all the effort that was made [and] the buyers are offering very little…$3,000 dollars per hectare and we have hardly benefited much. Twenty years of waiting, so much sacrifice sowing, then in the pruning of the branches, spraying to avoid plagues so that they can come to pay us very little is not fair." (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-10)
>
> *"Fue duro el trabajo. En la primera siembra demoramos tres meses trabajando todos los días. Incluso contratamos gente de fuera para avanzar con la siembra, pero me entristece por todo el esfuerzo que se hizo [y] vienen los compradores ofrecen muy poco $3.000 dólares por hectárea y casi no hemos beneficiado mucho. Veinte años de espera, tanto sacrificio sembrando, luego en la poda de las ramas terminando machetes, fumigando de las plagas para que nos vengan a pagar muy poco no es justo."*

Other communities reported similar problems related to forestation projects and water sources, while some communities denounced the corruption of community leaders and an unequal distribution of the money earned from reforesting trees. It is clear that a reductionist definition of diverse ecosystems that is connected to a utilitarian, market-based perspective that views ecosystems through their economic value first has negatively impacted various communities in Chimborazo. The program also represents a market instrument that uses community labour to generate a commodity (wood) that can lose its value due to market fluctuation. In many cases, communities

would harvest entire forests, further reducing the price the community received and benefiting the buyer.

7.5 An Epistemic Struggle: Kichwa Environmental Knowledge

Environmental conservation and PES programs linked to REDD+, such as *Socio Bosque,* have been criticized by Indigenous and civil society leaders for promoting what has been characterized as a top-down environmental agenda that does not take into account local knowledge and understanding about the environment. Shortly after it was first introduced, the Confederation of Indigenous Nationalities of Ecuador (CONAIE) and CONFENIAE (Confederation of Indigenous Nationalities of the Ecuadorian Amazon) both denounced *Socio Bosque* as a threat to Indigenous peoples' right of territorial sovereignty and to the equilibrium between *Pachamama* and the beings, both human and non-human, that inhabit local ecosystems. In a letter to UN General Secretary Ban Ki Moon in 2011, CONAIE also expressed concern about the "capitalist marketization of [Indigenous] forests, water and biodiversity" done through "private hoarding initiatives of land and environmental services" (CONAIE, 2011). The concerns expressed by CONAIE represent a tension between Indigenous *cosmovisiones* (worldviews) about space, place, and nature and market-based notions of environmental conservation and resource governance. However, amidst the seeming tension and negative stance of national Indigenous organizations, local Indigenous communities have decided to participate in the state-led PES program *Socio Bosque* .

In spite of participating in a program that umbrella Indigenous organizations claim runs counter to Indigenous *cosmovisiones* and livelihoods, these communities maintain a complex connection and relationship with *Pachamama*, a relationship that has survived in spite of continually changing land use and resource management practices. This section seeks to understand how *Kichwa* communities perceive land and resource through their relationship with *Pachamama.* To achieve this understanding, secondary sources that offer insights into *Kichwa cosmovisiones* are combined with firsthand interviews and focus group discussions in *Kichwa* communities.

Indigenous communities' continued, complex relationship with *Pachamama* is a relationship that has survived over 500 years of discursive marginalization and destruction, or what Stibbe (2014) calls discursive erasure. However, where erasure exists, a discursive struggle of the marginalized is also present in opposition to the hegemonic discourses that dominate and oppress (Stibbe, 2014). The discursive struggle within Ecuador can be seen with the inclusion of Indigenous concepts in the Ecuadorian Constitution. As previously discussed, on the surface, the inclusion of Indigenous concepts in mainstream social and political discourse represents a monumental achievement for Indigenous peoples. However, the inclusion of these concepts into state-led discourse has allowed the Indigenous political and economic elite, non-indigenous peoples, and the state to control and to define these concepts. From a local, Indigenous perspective *sumak kawsay* and *Pachamama* are living concepts whose definition is based on continual intra and inter-communal relationships combined with a complex relationship between individuals, communities, and *Pachamama* - deeply spiritual relationships framed by reciprocity, relationality, complementarity, correspondence, and cyclicity and defined by the normative practice of these concepts. However, even within Indigenous communities, there are varied understandings and definitions of these concepts, demonstrating the complexity of universal explanations of deeply individual and highly spiritual meanings ascribed to lived experiences. The discursive and epistemic struggle over the definition of Indigenous concepts represents a site of resistance where Indigenous peoples engage with vestiges of colonial and state ideological, political, social, and cultural encroachment that, at the same time, have practical implications that involve changing land use and resource management practices within Indigenous communities. This section will explore how the *Kichwa* of Chimborazo interact with and understand *Pachamama*, and how their understanding of and interaction with their surrounding ecosystems informs their everyday life and participation in PES programs like *Socio Bosque*.

7.6 Runa and Pachamama: A complex cosmovision based on relationality, complementarity, correspondence, reciprocity, and cyclicity

In contrast to the epistemic foundations of SFG that classify and redefine nature as places fit for market-based environmental conservation and livelihood programs, Indigenous communities refer to nature as part of an ecosystem comprised of all living beings, including plants, animals and

humans, as well as everything contained in the cosmos. The *Sarayaku* of the Central Amazon submitted a proposal to the 2015 Paris Climate Conference where it stated the following:

> *"Kawsak Sacha* (The Living Forest) is a proposal for living together with the natural world that grows out of the millennial knowledge of the Indigenous Peoples who inhabit the Amazonian rainforest, and it is one that is also buttressed by recent scientific studies. Whereas the western world treats nature as an undemanding source of raw materials destined exclusively for human use, *Kawsak Sacha* recognizes that the forest is made up entirely of living selves and the communicative relations they have with each other. These selves, from the smallest plants to the supreme beings who protect the forest, are persons (*runa*) who inhabit the waterfalls, lagoons, swamps, mountains, and rivers, and who, in turn, compose the Living Forest as a whole. These persons live together in community (*llakta*) and carry out their lives in a manner that is similar to human beings." (2015: 1)

This statement suggests an Indigenous view of nature as interconnected with all forms of life and part of a larger economic and social system. In Indigenous *cosmovisiones*, or worldviews, "nature is conceived as an organism where each individual part is linked to the whole" (Estermann, 2014: 65). Nature as a living being and part of the larger community became evident to me during my time in various *Kichwa* communities. I observed a clear connection between individuals and communities, many times eating meals and conducting interviews and focus groups outside on the grass of the *páramo* instead of inside a nicely built community centre. The following quotes taken from various interviews in Chimborazo provide a small window into the *Kicwha* perspective on *Pachamama* as a living being connected to the community and the provider of life.

> "*Pachamama* for the community is our mother where we are. We understand that we are formed from the earth, therefore, we live from the earth physically and materially. No one can live, we are the earth, for more scientists and intellectuals [we may be], absolutely everyone lives from the earth" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-08-08.
>
> *La Pachamama para la comunidad, es nuestra madre donde nosotros. Entendemos que somos formado de la tierra, por tanto, vivimos de la tierra física y materialmente. Nadie puede vivir son la tierra, por más científicos e intelectuales, absolutamente todos vivimos en la tierra.*

> "*Pachamama* for the community is life. Without the earth we cannot live. The earth is important to develop as a community…. Speaking of *buen vivir*, we must be people who value our culture and our ethics, that is called *buen vivir*. With *Pachamama* we must live in respect and care, but if we do not care for *Pachamama*, she becomes skinny/weak. It is like being a malnourished person if we do not take care of the *Pachamama*. [Currently] we are malnourishing [*Pachamama*], so we must take care [of her] with native plants" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-31)

> *La Pachamama para la comunidad es vida. Sin la tierra no podemos vivir. La tierra es importante para desarrollar como comunidad…. Hablando del Buen Vivir, nosotros debemos ser personas que valoran nuestra cultura y nuestra ética, eso se llama en buen vivir. Con la Pachamama debemos vivir en respeto y cuidando, sino cuidamos la Pachamama se flaquea. Es como ser desalimentado una persona sino cuidamos la Pachamama, mejor vivimos desalimentando, por eso debemos cuidar con plantas nativas.*

> "For us, *Pachamama*, as is the same for Indigenous peoples, is the source and our mother who gives us life and food. That is why we are always saying that we must take care, that we must protect, that we must not mistreat the land and that we must not mistreat the resources we have on our soil in *Pachamama*. That is our very clear approach from the thinking of the Andean people and our nationalities" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-10)

> *"Para nosotros, la Pachamama igual para el pueblo indígena es la fuente y nuestra madre que nos da la vida y la comida. Por eso siempre estamos diciendo que hay que cuidar, que hay proteger, que no hay que maltratar la tierra y que no hay que maltratar los recursos que tenemos en nuestro suelo en la Pachamama. En eso muy claro nuestro enfoque con el pensamiento del pueblo andino y de nuestras nacionalidades."*

These quotes indicate a deeper connection between *runa* (man) and *Pachamama* that transcends a purely utilitarian and materialistic perspective. In other words, the *pacha* (earth) is not bound by mechanical laws, but a living organism where all parts are related in a constant interdependence and exchange. Therefore, natural resources, such as land, air, and water are not simply at the disposition of human beings, but living beings themselves, or, as Estermann calls them, "organs in the great cosmic organism, life, and sources of life" (Estermann 2015: 144). According to Estermann, for *Kichwa* Indigenous peoples, the idea of privatization or ownership, even in the communal sense, is considered a sacrilege that is rooted in an Occidental separation of humans and nature which leads to the commodification and exploitation of natural resources within a capitalist economic system (Estermann 2015:144; de Sousa Santos 2007: xxxvi). Estermann recognizes that "operationalizing" *buen vivir* in the form of environmental governance strategies is difficult because the Indigenous *cosmovisión* is incompatible with the Western-modern model.

> "the ecology or better 'ecosophy' is not a question of environmental protection, but a holistic paradigm of life and economy that is in tune with the forces and network of relationships of the cosmos. The Andean conception of the universe as an 'organism' considers any deterioration of cosmic equilibrium as a 'disease' that becomes, in the case of unlimited capitalist growth, cancer in generalized metastases (Estermann, 2015: 191).

Achieving *buen vivir* and an eco-friendly coexistence requires a fundamental reordering of power relations. According to Estermann, this cannot be done through projects like *Socio Bosque* that must

first dismantle Indigenous forms of organization to construct capitalist market economy solutions (Estermann, 2015).

To better understand this complex relationship between nature and Indigenous communities, a further explanation of the values of relationality, complementarity, correspondence, reciprocity and cyclicity that underpin this relationship is required. First, relationality is the "fundamental axiom of Andean philosophy" (Estermann, 2014: 65). Relationality in the Andean context means that everything is connected and that there are no disconnected realities. This way of relational thinking is expressed in the Andean Cross.[17] The importance of relationality is seen in the interdependent relationship between Indigenous communities and *Pachamama*. Second, complementarity in the Andean *cosmovisión* is expressed in the fact that Indigenous communities believe that every entity and event has its complementary opposite pole as its essential condition to be complete and to exist and act (Estermann, 2014: 67). Complementarity is seen in nature with the sun and moon, sky and earth, man and woman, day and night, dark and light, and good and bad – all go together and need each other. Practically, this means that an isolated individual is considered incomplete and deficient.

This view is reflected in a story told to me during my time in one community about a priest who was sent to live in a rural, Indigenous community. One day the priest left his house and while he was out a woman visited his home. Since the priest was out, his neighbour, who was an elderly Indigenous woman, told the woman that he had left. When the priest arrived home, the elderly woman told him that his "wife" had come to visit him. The priest laughed and stated that he was not married and because he was ordained in the Roman Catholic Church, he could not be married and had taken a vow of celibacy. Puzzled, the elderly woman looked at him and said, "Ok, but your wife stopped by to see you". To the elderly woman, it was inconceivable that even a priest would live without his complementary "other" and, therefore, the woman that visited him had to be his wife. As this story suggests, the Indigenous imaginary about relationships is rooted in complementarity, a complementarity not only seen in human relationships but also in relationships with nature. For example, various *Kichwa* legends tell of the relationships between mountains and volcanos. The *Tayta* (Father) Chimborazo Volcano is seen as male and has its complement in the

[17] For a detailed analysis see Estermann 2014.

Mama (Mother) Tungurahua Volcano seen as female. Similarly, the *El Altar* (the Altar) Volcano has its complement in *Mama* Isabela (*Sangay* Volcano). Third, correspondence is expressed through an interconnectivity between the micro and the macro or, in other words, each act or event has its respective response. Therefore, the human being "represents, through symbolic acts, what happens on a large scale to ensure in this way that the universe and the cosmic order continue to exist" (Estermann, 2014: 70).

Fourth, according to Estermann, reciprocity is the ethical and social application of complementarity. Every human and divine act arrives at its end when an equivalent reciprocal and complementary act is received. Therefore, "a unilateral action distorts the delicate equilibrium between actors in the economic, organizational, ethical, and even religious spheres" (Estermann, 2014: 70). Reciprocity is a concept that has been thoroughly studied in the context of Andean peoples, particularly the work of John Murra. Murra states that reciprocity and redistribution in Andean civilizations "is to ask when you are sure to get" (Murra, 2017: 25). In other words, reciprocity is part of the social fabric of Andean Indigenous communities and, according to Alberti and Mayer, is the nucleus of social and economic organization. The same authors provide a more detailed description of Andean reciprocity by stating that it is "the normative and continuous exchange of goods and services between well-known persons, in which, between a service and its return, a certain time must elapse, and instead of being an open bargain the process of negotiation between the parties is rather concealed by forms of ceremonial behavior" (Alberti and Mayer, 1974: 21). In many cases, the exchange in the reciprocal process is not always equal and represents symmetric and asymmetric relations, often acting as a mechanism of redistribution. Therefore, purely economic measurements to quantify the relative value of the goods and services exchanged do not always capture the entire meaning of Andean reciprocity (Ferraro, 2004).

The concept of reciprocity is epitomized in the practice of *randi randi* was explained to me during interviews as "giving…this word expresses the sense of offering our knowledge, help and experience to all of our community" and "a mutual exchange…it is reciprocity but a mutual exchange that is not limited to time. 'I offer you my hand, but you also offer me yours. This can be in a while or at any time". Even when this exchange cannot be one of equality, it is expressed verbally through the

term "*Dios te pague*" or "May God pay you". As can be seen, reciprocity is expressed even when a person cannot repay by stating that, if I cannot pay you, "God will do it in my place". Therefore, reciprocity is not only expressed in corresponding exchanges, such as money for money or work for work, but it can be cancelled in a symbolic or ritual form as well. Practically, reciprocity can be seen in the hospitality shown in Indigenous communities, something that I have been privileged to experience on many occasions during my visits to the communities. As Murra recognizes, "the beneficiary [of reciprocity] must provide hospitality…it isn't, just, you know, a plate and a cold sandwich thrown in. This is hospitality you're offering; this is a reciprocal thing, and the food should be elegant, the food should be better than what you would normally eat by yourself. You offer more, and what is an appropriate reciprocal gesture at this level is very well understood by all parties" (Murra, 2017: 26).

Finally, for the Andean Indigenous, time and space is cyclical, something that repeats itself. Time and space are not seen as infinitely linear but as an unlimited spiral, "a periodic succession of cycles governed by astronomical, meteorological, agricultural and vital rhythms" where each spiral describes a cycle, ending with a cataclysmic event (*pachakuti)* that begins a new cycle (Estermann, 2014: 70). The principle of cyclicity calls into question a perspective that views development as an automatic advancement from a beginning to a supposed end. In *Kichwa,* the word for time and space is the same (*pacha),* suggesting there is no separation between time and space for the *Kichwa* Indigenous people (Estermann, 2014). As a result, the *Kichwa* expression for past literally means the "space/time that we have before our eyes". Meanwhile, the expression for future is the "space/time that is behind us". Estermann describes it in the following way: "the Andean man moves with the gaze fixed in the known past as a point of orientation, moving backwards towards a still unknown future" (Estermann, 2014: 72). An example of the cyclical nature of Andean thinking is the calendar used by the *Kichwa.* The Andean calendar is seen as a set of events that occur throughout the year. The major festivals also follow the rhythm of this calendar: the time of sowing with the *capac raimi*, the flowering with the *paucar raimi*, the harvests with the *inti raimi,* and the time of rest and preparation of the land in the months of August and September with *kullak raimi.* While each of these festivals and events happen in successive order, they are repeated and celebrated each year.

The relationship between *Kichwa* communities and *Pachamama* is rooted in interconnectivity between all living beings and based on Indigenous values of relationality, complementarity, correspondence, reciprocity, and cyclicity – values that are lived experiences that form the base of individual and inter-communal relationships and the relationship between *runa* and *Pachamama.* In contrast, SFG prioritizes a utilitarian relationship between man and the environment, reducing nature to its most basic elements that are void of any spiritual and cultural significance.

7.7 Understanding Indigenous Knowledge and Values through Storytelling

Interconnectivity between all living beings is something that was apparent in the language used and stories told during interviews in Chimborazo. Many Indigenous cultures use story-telling as a means of passing down beliefs and values to future generations, connecting both the story and the story-teller to the future and the people with the land (Tuhiwai-Smith, 2012). Bishop suggests that "the indigenous community becomes a story that is a collection of individual stories, ever unfolding through the lives of the people who share the life of that community" (Bishop, 1996: 169). For the *Kichwa* of Chimborazo, community is built and sustained on the stories told by the elderly. In other words, "the community is created and recreated, among other factors, thanks to the indigenous imaginaries contained in stories…[where] indigenous find the expression of their being and their place in the world through the auditory exercise of the teaching narrated by the elderly" (Tuaza, 2017: 22).

During my time in the field, storytelling became commonplace in focus groups and interviews and emerged as a way in which *Kichwa* communities express their relationship with *Pachamama.* From fables to historical narratives about the hacienda, stories became a part of my interactions with communities and a rich methodological resource that allows individual voices to be heard through the narrative process. It became clear to me that *Kichwa* communities maintain ties to local place and space through stories that connect them and future generations to their immediate surroundings and the larger *cosmos.* The following section will tell two stories that show the values described in the previous section. The first story is a tale about the Chimborazo Volcano and its importance to the surrounding communities. Versions of this story were told to me during various visits throughout my years working in and visiting *Kichwa* communities. The second story is a personal experience

from a community with which I was able to collaborate on the building of a new church in 2017. Both of these stories provide examples of relationality, complementarity, correspondence, reciprocity, and cyclicity.

7.8 La Entrada Secreta del Tayta Chimborazo

For the *Kichwa*, mountains, such as the imposing *Tayta* Chimborazo volcano, are seen as a living beings who both have and give life. Mountains and volcanos display human emotions and characteristics, such as anger and jealousy. They are male and female, mother and father, good and bad, and young and old. During one interview in a participant community, a local leader stated "Who says mountains don't cry?...Mountains cry when they love and are separated from those they love just like people cry when they are separated from their loved ones". During my time in the field, the story of *Tayta* Chimborazo was recounted to me on various occasions. This story represents the intricate relationship that *Kichwa* have with their surrounding environment and was collected through interviews and the help of Pablo Sanaguano's (2012) book *La entrada secreta al Chimborazo* (Father Chimborazo's Secret Entrance).

In a number of communities, the ever-imposing presence of the Chimborazo volcano loomed over the focus groups or interviews, which often took place outside. The volcano is present in the everyday reality and stories of the communities. While interviewing one *Tayta,* he explained how his grandparents told him that Chimborazo is alive and walks and that inside the volcano is a large, beautiful city that contains great wealth. For *Kichwa*-speaking Indigenous populations, Chimborazo, the tallest mountain in Ecuador at 6,268m, is not only a natural resource and splendour of nature, but a living being who interacts with individuals and provides for the community. The volcano is referred as *Tayta* (Father) Chimborazo, indicating the reverence held for the intimidating mountain, as well as the relationship between those living in the surrounding foothills and the giant volcano.

As legend has it, *Tayta* Chimborazo has a secret entrance that only he reveals to those he wishes. Once inside, those who enter have access to all the riches Chimborazo can offer, riches such as gold and seeds. However, if one takes from Chimborazo, he/she must thank the mountain by leaving a *kukayo* or gift. Those who do not leave a gift to thank the mighty mountain will see their riches turn to dust. In the various versions of this story told in Indigenous communities, Chimborazo is a living

being and provider to the communities. In one version, a man takes the gold offered by Chimborazo but fails to leave a *kukayo*, while his family members take seeds back to the community and thank Chimborazo with a *kukayo.* When they arrive back at the community, the man who took gold realizes that his gold has turned to potato seeds, but these seeds do not produce a good harvest. Meanwhile, those who took seeds are blessed with a bountiful harvest and continue to thank Chimborazo with grand celebrations. Chimborazo as a father figure and provider is evident in this story. However, Chimborazo does not provide economic riches, but riches that are essential to human life, seeds.

The mountain is not an abstract rock but a living being who provides and cares for the essential needs of the community. In return, the community sees Chimborazo as part of a larger "ecosystem" on which they are all dependent. Therefore, communities not only thank, but also care for the volcano by showing respect and awe. This story is representative of the relationship between *Kichwa* communities and *Pachamama.* In this context, the story of Chimborazo suggests that "all elements of landscapes are living beings with an 'inner world' expressed in a capability of intentionality and an 'outerworld' expressed in the forms of stones, mountains, lakes, rivers, plants or animals. They form a 'natural community' in which each entity has life, spirit and agency, thus 'humanizing' the landscape" (Boillat et al., 2012: 670-671).

The story of *Tayta* Chimborazo represents an example of the ways in which the *Kichwa* view nature and maintain an intimate, interconnected relationship with the living beings that form part of their surrounding ecosystems. The values of relationality, complementarity, correspondence, reciprocity, and cyclicity can be clearly seen through the giving of gifts to Chimborazo and the subsequent bestowing of blessings by the volcano to the community. Nature, for the *Kichwa,* is much more than the sum of its parts – trees, grass, mountains, and animals – but a living ecosystem that demands respect and, when respect is given, blessings flow.

7.9 Una Mamita y su Cuchara

The second story comes from a personal experience in the community that was not part of the *Socio Bosque* program, but a place where I have worked since approximately 2015. This particular story happened in 2017 when the community was hoping to build a new church with the Indigenous

Anglican Church of Chimborazo. Church leaders met with the community to discuss the possibility of building the church, but they soon realized that neither the community nor the Anglican church had the funds to build the church. The community had come to the resolution that the church could not be built when suddenly church leaders were approached by an elderly widow who was in attendance. The woman presented them with her wooden spoon and told them that this was her contribution towards a new church building. This woman was one of the oldest in the community and also one of the poorest.

The gift of her large wooden spoon was not only symbolic, as it represented all that she had, but it also represented her willingness to commit her time and food resources to cook for the community while the church was being built. Communal cooking is an important task in the community, as discussed above, representing *randi randi* and a way for even the elderly to contribute to communal labour. The elderly widow was demonstrating the value of reciprocity by giving what she could, knowing that the benefit would be communal. The result of the widow's quiet and humble display of generosity was that other families quickly stepped forward and pledged support in the form of promises of bags of cement, bricks, and aggregate for the new building. In 2019, the church was finalized with the help of the community and some outside funding. The widow's sacrifice indicates the highly personal nature of the values of relationality, complementarity, correspondence, reciprocity and cyclicity, and how these values move community members to act in support of larger communal well-being.

7.10 The Sacred and the Secular

The story of Chimborazo in particular represents a divine element found within the *Kichwa cosmovisión*. The relationship between the *Kichwa* Indigenous and *Pachamama* is not simply one of normative practices that demonstrate an interconnectivity, but it is also expressed in a highly spiritual connection through reciprocity, complementarity, correspondence, and relationality between individual, community, God and nature. This connection is expressed in a number of religious and spiritual practices that amalgamate ancient Indigenous spiritual beliefs and rituals with Catholic and Evangelical Christian doctrine and liturgical practices. In some religious circles, particularly the Roman Catholic and Evangelical Christian faiths, the interaction between Indigenous

communities and nature were and are seen as profane acts. The work of 16th Century Jesuit Priest, Blas Valera, was highly criticized for his view that Andean religion was a precursor to Christianity and mirrored Christian beliefs and practices in many ways. Valera was imprisoned on unknown charges, with many scholars believing that he was accused of heresy (Hyland, 2011).[18]

According to many theologians, Andean Christianity can be accused of adopting what many critics would argue is syncretism – the blending of various elements from two diverse and distinct religious beliefs and practices. In many cases, religious beliefs and practices clash with one another; however, Andean representations of Christianity have fused conflicting elements of traditional Andean beliefs with Catholic and Protestant traditions and have reinterpreted these elements to form a new harmony between belief and practice. Many Christian theologians would argue that this syncretic mix needs to be avoided because the lines between the profane or secular and the sacred become blurred. However, for the *Kichwa* Indigenous people, the secular and the sacred are inseparable. Estermann explains that for the Andean Indigenous communities the incorporation of exogenous religions, philosophies and worldviews into their own ancestral wisdom and form of living is not complicated or seen as a contamination of their pure worldview (Estermann, 2014; 2015)

In fact, it could be argued that Andean religiosity is the result of a "selective process of complementation and interreligious convergence" and, an example of what the Apostle Paul stated in 1 Thessalonians 5: 21 to "test everything; hold fast what is good" (ESV). For the *Kichwa,* the "good" expressed by Paul is everything that "contributes to life, the cosmic order, the ecological equilibrium and *pachosophy*, the intercultural and intracultural harmony, the 'Good Life', and the conservation of the fragile and complex network of relationships, while at the same time rejecting what damages this equilibrium and order" (Estermann, 2014: 105). Examples of the combining the sacred and the secular within *Kichwa cosmovisiones* became evident to me during interviews and focus groups. The following quotes taken from various *mamas* and *taytas* show the spiritual connection between *Kichwa* communities, *Pachamama,* and the divine, expressed through *Tayta Dios* (Father God). The majority of communities interviewed view *Pachamama* as a gift from *Tayta Dios.*

[18] Hyland's work on Valera provides a detailed account of his life and main work "An Account of the Ancient Customs of the Natives of Peru".

"With respect to the earth, our *Tayta Dios* has given us the *Pachamama*, it is the most wonderful thing we have in life. Without the earth there would be nothing" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-08-16)

Con respecto a la tierra, nuestro Padre Dios nos ha brindado a la Pachamama, es lo más maravilloso que tenemos en la vida, sin la tierra no existiría nada.

"The owner of everything is God. We are simple administrators and caregivers, so I thank *Pachamama* with all my heart. God created everything perfectly. We enjoy the earth, the air, the sun, the moon. Thank you to Mother Earth we get daily food, animals, plants and we have life. There is life in her [*Pachamama*]. On my behalf, I worry daily to care for and give thanks to God wherever I am" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-26)

Dueño de todo es Dios. Nosotros somos simples administradores y cuidadores, por eso agradezco con todo el corazón a la Pachamama. Dios creo todo perfectamente. Disfrutamos de la tierra, del aire, del sol, de la luna. Gracias por la madre tierra sacamos el alimento diario, los animales, las plantas y nosotros tenemos vida. Hay vida en ella. De mi parte preocupo a diario para cuidar y dar gracias a Dios en cualquier parte que me encuentro.

"From *Pachamama* we live, we have food and we share the food thanking God"

De la Pachamama vivimos, tenemos comida, carne y repartían a todos la comida agradeciendo a Dios (*Tayta* interviewed in non-*Socio Bosque* community, 2019-08-14)

The deeply spiritual connection between nature, the divine and others indicated in these quotes creates practical ways in which thanks is expressed to *Pachamama*. Focus group participants in Community 4 stated that "through working the land and producing, we deepen our relationship with *Pachamama"*. As a result, one must ask *Pachamama* for permission before sowing and thank *Pachamama* after the harvest, practices that many proponents of "modern" Christianity would view as pagan and the secular world would view as animistic, even though Thanksgiving can be seen as the Christian version of thanking God for a good harvest. Various community members interviewed in Chimborazo expressed the incorporation of the sacred into their day to day lives. One particular practice was the invocation of the names of ancestors during the sowing of the seeds in the fields, while at the same time asking *Pachamama* and *Tayta Dios* to bless the fields and future harvest. "This is how we maintain our connection to our past, present, and future" one *mamita* told me. As the following quotes show, thanking *Tayta Dios* and *Pachamama* is common practice during various activities of Indigenous life and is often part of larger communal celebrations that stem from traditional practices dating back to the hacienda and beyond.

"In gratitude to *Pachamama*, at carnival we all gather to spend time together. We gather all the tender grains, cook and eat all of them thanking God" (*Mamita* interviewed in non-Socio Bosque community, 2019-08-14)

En agradecimiento a la Pachamama, en carnaval nos reunimos todos para pasar juntos. Juntamos todos los granos tiernos, cocinamos y comemos todos agradeciendo a Dios

"Well, personally, to sow we always ask our God for one more day of life, work and daily labors. Because we cannot live far from God, we are always in contact with him to sow and reap" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-31)

Bueno, personalmente para sembrar siempre pedimos a nuestro Dios por un día más de vida, trabajo y labores diarios. Porque, de Dios no podemos vivir alejados, siempre estamos en contacto con él para sembrar y cosechar.

"To sow, those who knew it prayed 'Our Father', but prayed on their knees entrusting in the hands of God and kissing *Pachamama* in view of the Chimborazo Volcano. The same was done for weeding, for everything asking permission and thanking *Pachamama*. In the times of the hacienda we sang the *Jaway*[19], but not anymore, because those who directed the song died" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-31)

Para sembrar los que sabían rezaban desde Padre Nuestro, sino oraban de rodillas encomendando en las manos de Dios y besando a la madre tierra de vista al Chimborazo. Igual para hacer la deshierba, para todo pidiendo permiso y agradeciendo a la Pachamama. En los tiempos de la hacienda cantábamos el Jaway, desde ya no, porque ya murieron los que dirigían el canto

In the days of my grandparents, they had celebrations. When I asked why they celebrated, [they told me] it was to thank *Pachamama*. They had a week of celebrations, eating and dancing with the music of *pingullu* (flute) and drum…They went down to San Andrés, to the celebrations of San Pedro, San Pablo and the Nativity Virgin with cattle. At the building of the church they made a great altar with trees where they hung all kinds of fruits, numerous roasted guinea pigs and, in the middle, half a deer…Well, before they didn't say *Pachamama* like now, but they said *Santo Piso* (Holy Ground) and *Allpamama*. All that was to thank *Pachamama*. (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-31)

[19] El *Jaway* is a song that was sung during the harvest to give thanks. The purpose of the song is "to reflect and give thanks for each of the sacred elements that intervened to make the harvest possible" (El Comercio, https://www.elcomercio.com/tendencias/jaway-temporada-granos-cereales-chimborazo.html). While the tradition of singing el *Jaway* is being lost, on various visits with Luis to *Kichwa* communities I have heard this song sung in the fields and in the church as a song of praise and thanksgiving. However, Luis has explained to me that el *Jaway* is also thought to have been imposed by hacienda landowners with the purpose of controlling Indigenous labourers. While the labourers sang, they were more productive.

En tiempos de mis abuelitos hacían fiestas, yo preguntaba porque hacen fiestas, era para agradecer a la Pachamama. Hacían una semana de fiesta. Comían y bailaban en la música de pingullu (flauta) y tambor, nada de banda como ahora…. A San Andrés bajaban, a las fiestas de San Pedro y San Pablo con el ganado bravo, también a las fiestas de la Virgen de Natividad. En la puesta de la iglesia hacían un gran altar con árboles, ahí colgaban toda clase de frutas, cuyes asados en cantidad y en la mitad un venado….Bueno antes no decían Pachamama como ahora, sino decían Santo Suelo y Allpamama, todo eso era para agradecer a la Pachamama.

The following quotes are interesting since they indicate a loss of connection between *Pachamama* and Indigenous communities, specifically the younger generations, through the disappearance of traditional celebrations and practices related to *Pachamama*. However, the second quote indicates that the *Kichwa* have maintained various ways to thank *Pachamama* by fusing tradition with Western church practices.

"Respect through giving thanks to *Pachamama* and the community, in these years it has been lost. Young people no longer have respect, in vain they have studied in colleges [and] universities, but do not want to respect. If they feel like it, they greet you, if not nothing has happened. From all public and private institutions, we have to work to rescue our cultural and traditional values" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-08-08).

El respeto en agradecimiento a la Pachamama y a la comunidad, en estos años se ha venido perdiendo. Los jóvenes ya no tienen respeto, en vano son estudiados en los colegios, universidades, pero no quieren respetar. Si tienen ganas saludan sino no ha pasado nada. Desde todas las instituciones públicas y privada, toca trabajar en rescate de nuestros valores culturales y tradicionales.

"Thanks to my parents who taught me to care and love *Pachamama*. Before they sowed, they always prayed to God and then apologized to the *Pachamama* to till. Once the crops were harvested, they were deeply thanking *Pachamama*. In these times it is where we have forgotten to thank *Pachamama*, but our children no longer want to know anything about this. When they don't have a good harvest, they get angry, so much work for nothing has been said" (*Tayta* interviewed in non-*Socio Bosque* community, 2019-07-26)

Gracias mis padres me enseñaron a cuidad y amar a la madre tierra, ellos antes de sembrar siempre hacían una oración a Dios y luego pedían perdón a la Pachamama para labrar. Une vez cosechado los granitos igual iban agradeciendo profundamente a la madre tierra. En estos tiempos es donde hemos olvidado agradecer a la Pachamama, peor nuestros hijos ya no quieren saber nada de esto. Cuando no tienen buena cosecha mejor salen enojados, tanto trabajo para nada ha dicho.

"The celebrations related to the *Pachamama* we do not do, but we always remember the *Pachamama* in the (church) mass" (*Tayta* interviewed in non-*Socio Bosque*, 2019-08-16)

La fiesta relacionada con la Pachamama no realizamos, pero siempre acordamos de la Pachamama en las misas.

In contrast to the *Kichwa* infusion of the sacred and secular , Western society tends to separate religious belief and practice through a view of the sacred to that which happens between the walls of the church or religious institutions or in the reading of sacred texts, such as the Bible, thus creating a juxtaposition between the secular and the sacred[20]. This separation is a gross misinterpretation of Christian, Biblical principles, particularly those expressed in Colossians 3: 17, 23-24 which states that "whatever you do, in word or deed, do everything in the name of the Lord Jesus, giving thanks to God the Father through him" (ESV). For Andean Indigenous communities the "whatever" expressed in this passage extends well beyond church walls into their fields of harvest and daily lives and activities. There is no rupture between the secular and the sacred and, for the *Kichwa,* their relationship with *Pachamama*, both communal and individual, is one rooted in a highly spiritual context that recognizes *Pachamama* as a living being that is interconnected to *runa*, *Tayta Dios,* and the larger cosmos.

7.11 Spirituality and Nature: My Encounters of the Kichwa Cosmovision

What interviews and participatory observation indicated to me is the clear spiritual connection found within the *Kichwa* experience with *Pachamama.* On numerous occasions, I have experienced the connectivity the *Kichwa* people have between nature and the divine. In a recent telephone conversation with a close *Kichwa* friend, he could hear the birds in the background chirping in the Canadian spring. He commented, "Mateo, I hear birds chirping in the background. They speak His [God's] divine language to remind us that He is never far from us". This struck me as particularly insightful and something I would certainly agree with, but rarely bring to the forefront of my mind. The spiritual connection that the *Kichwa* people have with nature runs counter to the sacred-secular divide that can be seen in the market-based approach of PES programs that views nature as disconnected from human beings and from the larger cosmos or creator. Furthermore, PES programs fail to address the highly spiritual nature of Indigenous community relationships with nature and actively erase or eliminate the spiritual place that *Pachamama* holds in the hearts of *Kichwa* individuals and communities. The Indigenous view of the divine aspect of nature is absent in SFG, whereas for the *Kichwa*, every interaction with *Pachamama* is an interaction with the divine. Sowing,

[20] This divide is known as the secular-sacred divide (https://tifwe.org/dismantling-the-new-sacred-secular-divide/ https://tifwe.org/the-sacred-secular-distinction/ https://tifwe.org/historical-influences-of-the-sacred-secular-divide/

plowing, and harvesting the fields is considered a religious act, a prayer or a communion with the mysterious and most intimate of life (Estermann 2014: 96).

The grassland of the *páramo* is, for the Indigenous communities, a place to encounter the divine. Up and down the Andean highland mountains, especially in the province of Chimborazo, the *páramo* contains various sacred places, known by the name *huacas* (Andrade, 2004). *Huacas* were sacred places created by *Illa Tecce* [the Creator] and contained "particular and singular aspects…beyond what other sites of its type commonly had. Thus, it would serve as a sacred place and as a sanctuary where he and the other gods were worshiped" (Valera in Hyland, 2011: 56). Valera argued that the Incas did not partake in pagan worship of mother earth in these sacred places because "they did not speak with the mountain or spring or river or cave, but with the great *Ille Tecce Viracoca*, whom they said was in the sky or invisibly in that place" (Valera in Hyland, 2011: 56). Today, these same sacred places are used for various ceremonies where Indigenous people burn animal fat and candles, place the hair of cow and sheep, and leave potato, corn, and lima bean seeds. At the same time, communities drink, eat and dance in these sacred places and even take some of the dirt from the ground back to their homes because they believe that this land provides abundant blessings. As Estermann states, "the indigenous population…visits the same place to worship and pays tribute to the deities of the hills (*apus),* so that there are good harvests and so that their cattle are fertile and healthy" (Estermann, 2014: 26). One *Tayta* interviewed told the following story about a *huaca* in his own community:

> "My father told me about a story, where we now have the cultural centre building. Where it is now built, my father told me that when he was a boy, he was grazing animals with his friends. They made huts to sleep on the hill and to care for the animals. One night, sleeping at one o'clock in the morning, they heard a rooster sing, but they did not know where the rooster was. During the day, he and his friends went looking for the rooster. During the search, they found a cross in a stone…sometimes many do not believe [it exists]. At that time, they had a celebration where they had bullfights and rode horses. As a result, the celebrations began and this place remained a sacred place. The cross is not very straight…but we know that nobody has done it. This cross is in a very fine stone, then on the stone they made a larger cross. Now, every year the celebration is celebrated on May 3…people from all over come to this place. This place is in a flat [and] the cultural center is almost like a church. Over time we plan to build a church." (*Tayta* interviewed in non-*Socio Bosque* community, 2019-09-20)
>
> *Mi padre me comentó sobre una historia, donde ahora tenemos la casa cultural con el apoyo del dinero del Socio Páramo. Estamos hablando de dos casas en este momento: una es el centro cultural, la otra es*

con baños y con un escenario; la casa es de hormigón armado. Donde ahora está construido, contaba mi papi que antes de muchacho anduvo pastando animales. Decía que ellos quedaban a dormir haciendo chozas en el cerro, cuidando a los animales. Una noche estando, durmiendo golpe de la una de la mañana escucharon cantar un gallo. Pero no sabían donde cantaba el gallo, de día entre muchachos anduvieron buscando al gallo. En esa búsqueda encuentran una cruz en la piedra, en realidad está en una piedra, a veces muchos no creen. Entonces en aquella época ellos, habían hecho una fiesta. Dicen que hicieron una corrida de toros, montaron en caballos. De ahí se inició la fiesta y este lugar se quedó como un lugar sagrado. La cruz no es bien recta, es medio agobiada, pero esta como una cruz, sabemos que nadie a hecho. Esta cruz esta en una piedra bien fina, después sobre la piedra hicieron una cruz. En aquella época habían hecho el 24 de mayo, después alguien entro de cabildo y cambió las fiestas a 3 de mayo. Ahora todos los años se celebra la fiesta en esta fecha, es una fiesta grande, vienen gente de todo lado a este lugar. Este lugar está en una aplanada, el centro cultural es casi tipo de una iglesia, con el tiempo pensamos construir una iglesia.

Personally, I have experienced the interconnectivity and exchange between sacred sites, Indigenous rituals, and Christian liturgy and practice in many visits to Chimborazo. Having the privilege to accompany Luis on his many community visits has provided me a window into many Indigenous rituals and experiences that I, on my own, would never be able to see. I have spent time in the mountains with communities that bring a portion of their harvest and lay it on the ground in offering to *Pachamama,* while at the same time taking part in highly liturgical Roman Catholic and Anglican communion services. Upon first seeing these sacred places and acts, my upbringing in a strict evangelical environment screamed within me that this form of syncretism was a sign of an anti-biblical heterodoxy. What I now realize is that these events represent a highly interdependent spiritual connection between God, nature, community, and individual which is rooted in an extremely complex history of imposition, resistance, interpretation, and appropriation wrought through the organic processes which characterize the *Kichwa* Indigenous. As Estermann so aptly states, "Andean elements are Christianized and Christian elements are Andeanized. Even the most Andean of rites have been penetrated by what is Christian, and the most Catholic liturgy is dyed by Andean colors and reeks of Andean fragrance" (Estermann, 2001: 1). Anyone who has had the opportunity to spend an extended period of time in these communities will no doubt sense this wonderful fragrance and possibly be changed by it.

7.12 PES and Poverty Alleviation: Changing Communal Practices

PES programs not only change interactions between communities and their surrounding ecosystems, but also affect inter and intra communal relations, specifically the ways in which *Kichwa*

communities have traditionally cared for those in need. This section will contrast and compare PES forms of poverty alleviation with traditional Indigenous forms of caring for those in need within *Kichwa* communities. Payment for ecosystem services programs are not only seen as ways to combat climate change by states and international organizations, but they are also viewed as an integral tool to reduce poverty levels in rural communities, specifically those that depend on ecosystems for their livelihoods. The funds received from PES programs provide economic incentives for local individuals and communities to preserve nature and to replace or supplement incomes gained from resource exploitation or other economic activities that can have adverse effects on nature. The UNDP states that while PES programs are not designed to reduce poverty, "they can be oriented towards the achievement of social objectives, including poverty reduction" (UNDP, 2019: 3). A Report of the Millennium Ecosystem Assessment shows that environmental degradation is a principal factor causing poverty and proposes PES programs as part of a holistic strategy to curb climate change and alleviate poverty (MEA, 2005). In the case of Ecuador, a strategic objective of *Socio Bosque* is "to improve the life conditions of the rural populations" (MAE, 2014). Furthermore, as discussed in the distributional chapter on incentive payments, the program has a strict set of guidelines and requirements that must be directed at lowering poverty and improving the lives of the participant communities and their surrounding ecosystems. It is clear that a main objective of PES programs, particularly *Socio Bosque*, is alleviating poverty and improving livelihoods in participating communities.

While poverty alleviation clearly remains a goal of most PES programs, the empirical link between the two is unclear and scholars are hesitant to endorse a win-win discourse of environmental protection and poverty alleviation. Some authors argue that PES programs were not initially designed as a mechanism for poverty reduction (Pagiola et al., 2005). According to Wunder (2013), a shift within PES programs to include poverty reduction objectives came about because state-led PES programs often move beyond environmental governance as a primary focus and tend to "drift into win-win spheres of multiple side-objectives, such as poverty alleviation, regional development, or electoral motives" (231). Various empirical studies have shown that environmental conservation efforts such as PES have ambiguous results and show no consistent trends for poverty reduction (Pokorny et al, 2013; Jayachandran et al., 2017; Börner et al., 2017). However, some scholars argue that PES programs can have positive impacts on poverty reduction (Landell-Mills and Porras, 2002;

Pagiola et al., 2005; Engel et al., 2008; Wunder, 2008; Vira et al., 2012; Engel, 2016). However, Samii et al.'s systematic review of the literature found "little reason for optimism for the potential of current PES approaches to achieve both environmental conservation and poverty reduction benefits jointly" (2014: 7).

In the particular case of *Socio Bosque* in Ecuador, an Inter-American Bank study found no significant income differences between beneficiary and non-beneficiary indigenous households, suggesting a minimal economic impact (Arriagada et al., 2018a). There is little research done on the effects that PES payments have on traditional forms of poverty alleviation within Indigenous communities. As a result, local meanings of defining and treating poverty, built upon historical traditions and communal ties, are broken down by market-based approaches to alleviate poverty, which deprive people of access to land, water and resources (Escobar, 2012: 22).

Within *Kichwa* communities the concept of poverty and how those in need are helped in a communal setting differs greatly from that of the market-based approach to poverty alleviation inherent in PES programs. As Escobar (2012) notes, Indigenous societies have developed unique forms of providing for those in need and "that massive poverty in the modern sense appeared only when the spread of the market economy broke down community ties and deprived millions of people from access to land, water, and other resources" (22). PES programs' market-based approaches to alleviating poverty rupture communal relations and implement new mechanisms of state control based on "apparatuses of knowledge and power that took it upon themselves to optimize life by producing it under modern, 'scientific' conditions." (Escobar, 2012: 23). Under market-based approaches to poverty alleviation, the poor and poverty are seen as a problem that needs to be solved and, as a result, new discourses and practices were, and continue to be brought into existence and shape the reality to which they refer. While *Socio Bosque* is not the first development program or poverty alleviation strategy to undermine local and communal ties, it is rooted in a market-based approach to poverty alleviation that subsumes and marginalizes communal ties and local responses to helping those in need. The concept of the *huagcha* suggests that local communities continue to employ responses to poverty that are rooted in local history, culture and spirituality.

7.13 The Preferred Sheep: Local Strategies to Care for the Needy

The *Kichwa* peoples do not have a word for poor person. The word used to describe persons in need would be *huagcha*. However, this word has a much deeper meaning than its English translation of "poor". To present this difference I will draw from the work of Dr. Luis Alberto Tuaza entitled *Estrategias de resistencia Indígena en el contexto de la administración privada de poblaciones* (in Bretón and Vilalta, 2017). Tuaza points out that the word *huagcha* comes from the word *huagchu* which means the preferred sheep or the young llama let loose in the fields with the freedom to eat from any part of the land. According to one community member interviewed by Dr. Tuaza, "each family has their *huagchu*…the *huagchu* is left untied to roam. If it is lost, we search for it until it is found. When it dies without growing enough, it is buried and its meat is not consumed". *Huagcha*, which comes from *huacghu*, refers to those in need in communities, specifically orphans, widows or widowers, and strangers to the community who do not have access to land. The *huagcha* receives special rights within the community, such as the *shalana* and *kutiar*. The right to *shalana* is the right of the *huagcha* to collect the fruits of the harvest of others in any field, even in other communities. No one has the right to deny the *shalana*. One community member explained *shalana* in the following way to his son: "do not collect all of the grains and leave some potatoes because later the children of Saint Peter [*huagchas*] are going to come…we believe that if we do not leave grains for the *huagchas*, the following year there will not be enough harvest because Mother Earth will be angry" (Tuaza, 2017: 187). *Kutiar* allows the *huagcha* to cultivate small patches of crop on another person's land that is also being sown. The act of *kutiar* is justified by the belief of the presence of deity in the person requesting *kutiar*. John Murra describes the *huagcha* as "a person that has struggled getting the reciprocal services or the reciprocal resources due him….the widow…the orphan…the person that doesn't have enough relatives to really make in loud tones and in an assertive way the claim to the reciprocity which is due them" (Murra, 2017: 27). Therefore, the *huagcha* is connected to the concept of reciprocity in *Kichwa* communities.

Once again, storytelling is used to understand the concept of the *huagcha* and reciprocity in *Kichwa* communities. Tuaza (2017) interviewed an elderly *mamita* who spoke to the children of her community to tell the following story of a man who went to a distant town who observed some farmers by the side of the road. To the first farmer he said, "Friend what do you sow? Can you give me a furrow", to which the man replied, "What do you care! I can be planting stones and thorns".

The next day he found stones and thorns in his plot. The same man encountered a second farmer and asked, "Friend what do you sow? Can you give me a furrow?" The farmer replied, "welcome, you can sow. In this plot I am cultivating all the grains provided by the provident hand of God". The farmer returned the next day and saw that his whole farm was full of flowers and fruits. He says that the person who asked was God himself. This story shows the belief that the people [*huagchas*] who ask to deposit their grains on the property of the neighbours would be the representation of the deity.

The *Kichwa* construct of caring for those in need is based on a set of assumptions that provides those in need with specific rights. These assumptions run counter to a modern construct of poverty and poverty alleviation. Furthermore, the concept of *huagcha* creates co-responsibility and interdependence between the community and those in need. Nature is also seen as connected to caring for the poor in the provision of the *kutiar* and *shalana* and in the further benefit of those who participate in these ways of assisting the *huagcha*. For example, the *Pachamama* will provide a better future harvest to those who care for the *huagcha*. This local way of caring for those in need would fall into what Rahnema (1992) calls SPIMES (socio-cultural-space-times) that affect various perceptions and ways of dealing with the poor. In contrast, the modern construct of poverty and poverty alleviation reduces people and places to a purely economic dimension and eliminates local responses and relations, stripping these spaces of all potentialities. As a result, society is reduced to its economic dimension alone and, furthermore, nature is reduced to the economic benefit it can provide a local community and is seen as a resource to alleviate poverty. Modern responses to poverty seek to transform local spaces and places into a "mere economic machine…controlled and operated by others" (Rahnema, 1992: 189).

For Rahnema, another fundamental difference between local and modern responses to poverty is that the modern response begins with preconceived ideas and recipes of what should be done. This idea is developed and implemented by technocrats outside of the local space and place. As a result, everything local, including local responses to those in need, must fit into the preconceived ideas and recipes. In contrast, what matters at the local level is the day to day responses to the challenges of life as these play out in the community. As Rahnema (1992) states,

> "what finally decides [how to respond] is the living 'nose' of the people directly concerned for what is appropriate and sensible to do. In the other, the technocratic approach, the deciding factor is the dead data of an alien, often ideologically based knowledge system" (189).

When applying Rahnema's critiques to PES programs, one can see how these programs come from an epistemological perspective that views both nature and humans through an economic lens. Therefore, the solutions presented include poverty alleviation strategies that reduce local communities and their places and spaces to a purely economic dimension. As Rahnema states,

> "while the traditional answers to poverty were, in the past, often based on the pluralistic, culturally established and holistic perceptions of each particular space, the new programmes of action represented a universalist, one-track, income-based, and totally acultural recipe for abstract 'patients'" (Rahnema, 179).

This reduction means that solutions are presented in an economic dimension that do not take into account local spaces or places. The assumptions surrounding the concept of the *huagcha* "the modern economic construct of reality…assumes that natural resources are scarce [and] that human needs…are unlimited" (Rahnema, 187). Attaching PES programs to poverty alleviation becomes problematic and the analysis above helps to illustrate the limitations of classifying poverty as a quantifiable phenomenon that is devoid of local understandings and perceptions surrounding "poverty". As a result, contextualized ways of defining and treating poverty built upon local traditions and communal ties are broken down by market-based approaches to alleviate poverty (Escobar, 2012: 22). In the *Kichwa* communities of Chimborazo, the concept and practice of the *huagcha* still exists today in spite of years of market-based poverty alleviation strategies. However, the incorporation of poverty alleviation as a main pillar of *Socio Bosque* imposes an external, market-based approach on top of local ways of dealing with the poor and, as a result, changes local perceptions of poverty and living-well by injecting a market-based approach to environmental governance and poverty alleviation.

With local forms of dealing with those in need being pushed aside for larger national and global poverty alleviation initiatives, Indigenous communities are further marginalized from true and meaningful participation and inclusion since their ways of living based on communal ties rooted in

values of reciprocity, relationality, complementarity, correspondence, and cyclicity are disappearing. During interviews, many community members expressed concern over the changes that are occurring in their communal relations due to a loss of culture and sense of community in the younger generations. While this loss of culture is due to many factors, including migration and changes in education, PES programs like *Socio Bosque* contribute to this loss through a marginalization and disregard for communal ties that have, for centuries, been used to address issues of poverty and need in the communities. While community members interviewed did express the financial contribution *Socio Bosque* made to local community projects and individual family budgets and needs, the ability of *Socio Bosque* to provide sustainable income as an alternative to other income generating activities, such as agriculture and livestock, is largely unknown due to the short time period of the program. However, with community members continually stating that the incentive payment is insufficient and other activities generate more income, it could be only a matter of time before communities continue to move up the *páramo,* exploiting land for agriculture and/or livestock in search of sustainable livelihoods. While programs like *Socio Bosque* can contribute to improved household incomes and community development projects, they need to be combined with broader policies and programs that improve education and rural infrastructure, increase access to markets, and diversify local economies.

7.14 Conclusions

This chapter has explored an epistemic dichotomy - the ways in which the *Kichwa* Indigenous people interact with their surrounding ecosystems as part of a larger *cosmovision* about the interconnectivity between nature, human beings, and the divine compared with the SFG, utilitarian perspective that monetizes and commodifies nature, reducing it to quantifiable, measurable units that can be organized, managed and governed (Kopnina, 2017; Bayrak and Marafa, 2016; Gudynas, 2016; Dryzek, 2013). There are three main findings that can be drawn from the evidence above: 1) The epistemic underpinnings of PES programs classify and redefine the *páramo* ecosystem to fit larger international definitions outlined by environmental governance and climate change institutions, resulting in a changing ecological landscape of the *páramo* and a reshaping and loss of community and individual interactions and relationships with *Pachamama*; 2) *Kichwa* Indigenous communities have highly spiritual connections and relationships with nature that PES programs ignore and actively deteriorate through market-based, utilitarian ideologies of nature; and, 3) the empirical data

in this chapter indicates an epistemic struggle over land, space, and place, as well as local understandings and meanings of nature and poverty.

Classifying and Redefining Nature

The *Kichwa* understanding of nature has been contrasted with that of Scientific Forest Governance, which places emphasis on the utilitarian aspects of nature, oftentimes reducing diverse ecosystems to their most basic elements that can be commodified and sold on global markets. PES programs achieve this end by placing a price on the services provided by ecosystem which are used to compensate local communities for conservation efforts. In contrast, *Kichwa* classify nature as a living being that forms part of the larger cosmos. This understanding of nature is expressed in individual and communal relationships of reverence with *Pachamama.* These relationships are founded on values of reciprocity, complementarity, correspondence, and relationality. PES programs do not capture these values and through their commodification and monetization of nature, actively marginalize them. The inability of PES programs like *Socio Bosque* to incorporate Indigenous understandings about the world and nature into their market-based approaches to environmental governance creates an exclusionary epistemological process that eliminates and erases Indigenous *cosmovisiones*. This exclusionary process has operated within a local, historical framework of marginalization and oppression of Indigenous communities and ways of living, being and doing. Therefore, while some may applaud the inclusion of Indigenous concepts and *cosmovisiones* into mainstream, Ecuadorian political and social discourse, this inclusion has not contested the "colonial matrix of power" that continues to dictate the direction of environmental governance policies and programs.

The SFG utilitarian perspective reduces nature to its most basic elements, creating subtle changes within *Kichwa* communities' relationship with *Pachamama* demonstrated through state-led forestation, reforestation, and conservation projects that have changed community interactions and relationships with *Pachamama.* These projects have changed local landscapes, with some areas becoming desertified, making land unusable for future agricultural or livestock activities. As a result, communities push agricultural and livestock activities further up the mountains, infringing on the *páramo* ecosystem and affecting local water sources. While PES programs like *Socio Bosque* are not

the sole explanation for changes in livelihoods and relationships with nature, the market-based approach of these programs does not allow for alternative forms of understanding and, ultimately, interacting with nature to form part of national or even local environmental governance programs and climate change strategies. Instead, these strategies are rooted in high modernism that demands a specific structure, measurement, and achievement of national and global climate change goals, some of which run counter to Indigenous *cosmovisiones*. Furthermore, PES programs by their very nature require appropriation and privatization of land, which can run counter to Indigenous *cosmovisiones* and communal views of land, creating changes in local land use from a communal use to a more individualistic or private use for the purposes of conservation.

Divinity in Nature

From the data gathered during interviews, focus groups, and observation, it is clear that the *Kichwa* Indigenous people have a deep, spiritual connection with nature. For the *Kichwa* of Chimborazo, their understanding of nature is not purely biocentric, but is centred around a complex, interconnected relationship that begins with *runa* (man) and extends to the community, the natural and the divine of *Tayta Dios*. These relationships form the basis for the norms, rules, and regulations that inform everyday land use and environmental governance practices and are expressed in *huacas* (sacred places), such as mountains, volcanos and the *páramos* themselves, that have held their spiritual and cultural value for *Kichwa* peoples. Unfortunately, PES programs like *Socio Bosque* are not equipped to capture these aspects of Indigenous relationships with nature. While attempts have been made to provide a "cultural" aspect to *Socio Bosque*, nature as a spiritual entity with a connection to local communities has been ignored. The question also arises of how, or even if, spiritual aspects of human-ecosystem relationships can be captured within PES programs? Can a price be attributed to the spiritual connection between *runa* and *Pachamama?* If so, what would the introduction of a price on a living being (nature) do to the underlying *Kichwa cosmovisión* that currently informs communal practices and relationships? The research above indicates that placing a price on nature, even the spirituality of nature, for Indigenous communities profoundly changes the ways in which they interact with their surrounding environment. For example, even today sacred sites (*huacas*) that were previously untouched by regular human activity are now surrounded by agriculture and livestock which could possibly affect these sites and the spiritual connection between *runa* and *Pachamama* displayed in the possible disappearance of the *huacas*. However, even though certain

practices may be changed, traditional ways of living and interacting with nature continue to exist, as is the case with many traditional practices within *Kichwa* communities that have been informed by modern practices but continue to this day.

An Epistemic Struggle

Finally, the evidence in this chapter suggests an epistemic struggle over land, space, place, and traditional ways of living and being - a struggle rooted in a "colonial matrix of power" (Quijano, 2000). The discussions in this chapter show an epistemic dichotomy between SFG and IEK. This dichotomy is epitomized in how each perspective views and copes with poverty/needs, how nature is understood and perceived, and how environmental conservation is measured and quantified. In rhetoric, the Ecuadorian state has included Indigenous *cosmovisiones* into its political and social discourse and even into key state documents, as the Institutional chapter discussed in further detail. However, with PES programs becoming a key instrument in environmental governance and climate change strategies within the country, it is clear that the state prioritizes a specific form of knowledge and understanding about nature and diverse ecosystems, one that is rooted in a Scientific Forest Governance perspective that excludes Indigenous *cosmovisiones,* relegating them to the sidelines of true inclusion within the debates about solutions to serious climate change threats and impacts. As a result, while Indigenous communities are invited to participate in combating climate change through adaptation and mitigation strategies, these strategies are limited to a colonial framework to which Indigenous communities must conform both epistemically and, as discussed in the previous chapters, institutionally and distributionally. Thus, Indigenous participation and inclusion is relegated to the ability of communities and individuals to conform as environmental subjects (Agrawal, 2005) who willingly conform to state-led discourses, rules and practices. The ability of communities to conform as environmental subjects is institutionalized within a state-led framework that clearly delineates who participates, when they participate, and exactly how they participate.

The epistemic struggle between SFG and IEK shows that the hegemonic ideology of SFG actively erases local land use, resource management, and communal practices. The loss of traditional practices and connection to *Pachamama* was evidently expressed during numerous interviews and focus groups. While this loss of connection cannot be attributed solely to the implementation of

Socio Bosque, the program represents a market-based ideology that has separated *Kichwa* individuals and communities from land and place by disregarding the highly spiritual and cultural importance that *Pachamama* has for Indigenous communities.

Chapter 8

Conclusion: Discussion of Findings, Insights and Contributions

8.1 Introduction

This study explores the institutional, distributional, and epistemic effects that a national PES program in Ecuador, *Socio Bosque*, has on *Kichwa* Indigenous communities in the Highland province of Chimborazo. The principal research question explores why Indigenous communities choose to participate in PES programs that, on the surface, seem to be detrimental to their current livelihoods, land use, and resource management practices. In seeking to answer this question, the research explores the ways in which *Socio Bosque* changes *Kichwa* communities' relationship with nature by implementing a PES program rooted in a hegemonic environmental governance ideology of Scientific Forest Governance, which not only contradicts but actively erases *Kichwa* knowledge about and relationships with nature. Throughout the empirical chapters, the theoretical and practical underpinnings of PES programs were considered in relation to Indigenous understandings about nature, land, resources, and community. In this concluding chapter, various insights will be offered that seek to provide answers to the main research question. However, this study is not limited to the that question and can provide insight about Indigenous Environmental Knowledge, the rules and norms of supposed "free-market" environmental governance programs, the concept of hegemony, and the role of Indigenous agency, all of which will be explored below.

What does the experience of the five *Kichwa* communities of this study contribute to a broader understanding about the implementation of PES programs in Indigenous communities? It would be wrong to claim that the five communities of this study represent a "typical" experience of Indigenous communities with PES programs. This is not only because of the small sample size of communities compared to the national number of Indigenous communities that participate in *Socio Bosque*, but also because of the methodological difficulties involved in a short-term study such as this one (see Chapter 4), as well as the historical differences between the *Kichwa* of the Highland region and other Indigenous peoples of the Amazon (see the various discussions on the hacienda system throughout the research) . Therefore, I cannot claim that the words and behaviours of those interviewed in the five communities are typical of all Indigenous who participate in *Socio Bosque*, let alone global PES programs. Nevertheless, there are a number of commonalities among the five communities that permit broader insights and conclusions to be made. This concluding chapter explores these insights. It does so with a modest understanding that each community has a unique historical, social, cultural, political, and economic context that leads to its specific experiences, but

that these experiences can allow for broader conclusions to be drawn about PES programs, Indigenous inclusion and participation, and the wider Andean political economy. The first section provides an overview of the study and a summary of the principal findings that arise from the case of the *Kichwa* communities of Chimborazo and *Socio Bosque*. Section two draws on this summary and returns to the existing theoretical debates outlined in Chapter 3 to discuss the contributions of this research to academic literature. This section will be divided into three key insights about PES programs and their theoretical underpinnings. Finally, the third section makes concluding remarks about the policy implications of the research, as well as briefly discussing the methodological contributions of the research to decolonial research and community engaged scholarship.

8.2 Summary of the Study and its Findings

The empirical analysis of this research was divided into the following: 1) institutional, which looked at the rules and norms of an institutionalized PES program (*Socio Bosque*) and the effects these rules and norms have on Indigenous communities; 2) distributional, which analyzed the distribution of the *Socio Bosque* incentive payment at the national, provincial, and community level to understand how the five communities of this study spend their payments; 3) epistemic, which compared and contrasted the epistemic underpinnings of PES programs to Indigenous Environmental Knowledge, specifically the *cosmovision*es of the *Kichwa* Indigenous people and their relationship with *Pachamama*. The empirical research was framed within the social, political, cultural, and historical context of Ecuador and the specific reality of the *Kichwa* Indigenous communities of Chimborazo. This social, political, cultural and historical context helps to understand the effects of *Socio Bosque* on *Kichwa* communities.

The political environment in Ecuador during the last fifteen years presented opportunities and challenges for PES programs where new ways of envisioning environmental governance emerged. The 2008 Constitution provided both opportunities and challenges for Indigenous communities and their participation in the larger political sphere in Ecuador. The inclusion of Indigenous concepts, such as *sumak kawsay* and *Pachamama*, in the Constitution and the broader political and social discourse in Ecuador gave Indigenous peoples a space in the creation of a "pluri-national" state. However, while these concepts allowed for Indigenous inclusion to some degree, a process of

marginalization of Indigenous peoples remained through the struggle over the definition of these concepts and the subsequent implementation of policies that sought to achieve *sumak kawsay* and harmony with *Pachamama* (see Chapter 2).

The inclusion of Indigenous concepts into the 2008 Constitution also ushered in an era where Indigenous participation was, at least in rhetoric, prioritized by the state, beginning the creation of national development plans that prioritized the achievement of *buen vivir*, albeit a statist version of the concept. However, any study that takes place within the *Kichwa* communities of Chimborazo cannot ignore the historical context that has shaped the socio-political and economic life of these communities and their relationships with the Mestizo population, urban centres, and the Ecuadorian state. While the *huasipungo* system was abolished in the 1970s, the social, political and economic effects this institution left behind exist today both in practice and in the imaginaries of *Kichwa* communities that were a part of that system (Bretón, 2012; Lyons, 2006, 2016; Tuaza, 2014). As much as possible, this research takes into account the political economy of Ecuador and the socio-historical reality of the *Kichwa* of Chimborazo as the evidence presented seeks to understand the institutional, distributional, and epistemic effects that *Socio Bosque* has made on *Kichwa* communities of Chimborazo.

The institutional analysis of *Socio Bosque* explores the norms and rules laid out by MAE and indicates a clear governance framework that structures and defines individual and community behaviours. These rules and norms shape community interactions with the state and community and individual relationships with *Pachamama*. In contrast to free-market environmentalist thinking, the case of *Socio Bosque* shows that PES programs rely heavily on regulation through norms and rules in order to shape and control behaviour. Furthermore, an institutionalized *Socio Bosque* places the state at the centre of environmental governance through a constitutional framework that, while championing Indigenous values, fails to provide meaningful inclusion of Indigenous *cosmovision*es and, as a result, meaningful participation of Indigenous peoples into the discussion and implementation of local, regional and national environmental governance and climate change programs and policies. Meaningful *Kichwa* community participation was relegated to the sidelines in favour of a top-down, state-led approach that outsourced the monitoring and evaluation of the goals and results of the

program to the unpaid labour of community members. Communities did have relative freedom in deciding how to spend their incentive payments, but evidence suggests that even these expenses were controlled by MAE.

Finally, an institutionalized *Socio Bosque* introduces an administrative and regulatory field of practice that not only places a bureaucratic red tape burden on the shoulders of local communities but changes local environmental governance perceptions and practices (including ones rooted in highly spiritual beliefs) for national and (more ambitiously) global climate policy goals and agendas. Traditional means of interacting with and caring for *Pachamama*, such as controlled burning of the *páramo*, are deemed destructive and illegal through norms and rules that prohibit this activity. Moral regulation and obligation are instilled by linking *Socio Bosque* to the concepts of *sumak kawsay* and *Pachamama* that persuades Indigenous communities to participate, producing social and cultural identities and subjectivities that shape local relationships with nature and the state. Recognizing that, at times, persuasion and coercion can be indistinguishable, the symbolic action of the state (the inclusion of Indigenous concepts and the linking of the concepts to the state-led *Socio Bosque* program) align the desires of Indigenous communities with the interests of the state (Lyons, 2006). As a result, the moral and regulatory obligations embedded in *Socio Bosque* are similar to the regulatory and disciplinary practices of hacienda system (Lyons, 2016). In some cases, the obligation to care for *Pachamama* through programs like *Socio Bosque* directly contradicts national state policies of the rights of nature and resource extraction, which was seen in the case of two communities that formed part of this study and experienced difficulties with state-led and private resource extraction on their land.

The distributional chapter used national, regional, and local data gathered from MAE and *Socio Bosque* officials to understand how incentive payments are being spent. The empirical evidence shows that while *Socio Bosque* does offer financial and material benefits to individuals and communities, these benefits happen in a wider context of inequality that is rooted in the social and historical context of the hacienda system and actively erases IEK and the *Kichwa cosmovisión*. As a result, inherent in *Socio Bosque* 's sliding-scale payment scheme is a bias that favours individual landowners who can benefit from smaller landholdings or the ability to split larger landholdings into

smaller portions to enroll in the program, resulting in a higher per hectare payment. Furthermore, the communities and individuals interviewed do not see the incentive payment as a *derecho* (right), but as part of a clientelistic *regalo* (gift) from the state. This type of clientelism can be traced back to the hacienda system and landowners that rewarded loyal Indigenous subjects with favours and gifts (Lyons, 2006).

Finally, it would seem that communities were and are preserving the *páramo* without the *Socio Bosque* incentive payment and that the influx of money into the community does little to promote or increase further conservation. In fact, the evidence from the distributional chapter suggests that *Socio Bosque* erases IEK and the *Kichwa* relationship with *Pachamama* by placing an economic value on nature, reducing a complex and highly spiritual relationship to a purely economic and utilitarian one. That is not to say that Indigenous communities place no economic value on the *páramo* ecosystem, but that their relationship with *Pachamama* goes beyond economic value, which PES programs fail to recognize and to incorporate into ecosystem service valuations. Various quotes from community members indicate that the incentive payment from *Socio Bosque* is insufficient in light of the value that Indigenous communities place on *Pachamama*, which is calculated by the possible economic gain from other activities, such as agricultural and livestock production, and the spiritual and cultural value that *Kichwa* communities place on nature, which is not reflected in the sliding scale incentive payment of *Socio Bosque*. As suggested, the incentive payment calculation is arbitrary and based on the national budget and available funds, leaving no room for an increased value or an ability for Indigenous communities to negotiate the price of the payment. As a result, the value *Kichwa* communities place on nature based on the economic, cultural, and spiritual connection to *Pachamama* is largely erased from the incentive payment calculation of *Socio Bosque*.

At best, incentive payments serve as a stop-gap that prevents communities from using the *páramo* for other practices, such as agricultural and livestock production, but the ability for PES incentive payments to foster long-term, sustainable conservation and livelihoods is lacking. For example, once the *Socio Bosque* contract is finished, there is little to prevent communities from exploiting the once preserved *páramo* for economic gain. With the economic strain faced by many Indigenous communities in Chimborazo, combined with the historical land use patterns that continue to move

up and exploit virgin *páramos,* the prospect for long-term restoration and conservation of the *páramos* through PES programs like *Socio Bosque* is bleak. While communities and individuals have seen economic benefits from the incentive payments through the purchase of household items, livestock, and agricultural inputs, and community construction projects, such as irrigation systems, churches, and community centres, the long-term effects of these benefits are largely unknown and require further research. What the evidence above does indicate is that *Kichwa* communities see the financial compensation of *Socio Bosque* as insufficient in comparison to other activities, such as agriculture or livestock, suggesting that these communities are making economic sacrifices to participate in the program.

Chapter 7 provides insight into Scientific Forest Governance and Indigenous Environmental Knowledge, using PES programs, specifically, *Socio Bosque*, and the *Kichwa cosmovisión* as examples to compare and contrast. Overall, the evidence presented in this chapter indicates the complexity of assigning an economic value to nature in a context where the *Kichwa*'s relationship with nature does not exclude economic, materialist, or utilitarian values but also includes a highly spiritual relationship with nature framed by reciprocity, relationality, complementarity, correspondence, and cyclicity and defined by the normative practice of these concepts. The *Kichwa cosmovision* is not only ignored but it is entirely excluded from the epistemic foundations of *Socio Bosque*, a PES program rooted in Scientific Forest Governance. SFG actively erases Indigenous knowledge through a hegemonic environmental governance ideology that is guided by free market environmentalism, which seeks to reorganize and reclassify nature to fit global climate change goals.

The evidence provided in Chapter 7 suggests that the epistemic underpinnings of PES programs actively erase local Indigenous Environmental Knowledge and fundamentally change communal and individual relationships with nature. In the specific case of the *Kichwa* of Chimborazo, evidence indicates that *Socio Bosque* changes the individual and communal relationships that the *Kichwa* people have with *Pachamama* and alters historical land use and resource governance practices by ignoring the spiritual connection that the *Kichwa* communities have with *Pachamama* through the normative experiences of living concepts whose definition is based on continual intra and inter-communal relationships combined with a complex relationship between individuals, communities, and

Pachamama. While the literature on PES programs, such as REDD+, claims to respect and to incorporate Indigenous perspectives and values, the evidence presented in this research suggests that, in practice, PES programs do not offer meaningful spaces of inclusion and participation to Indigenous peoples and their *cosmovision*es in their design, implementation, and evaluation. Instead, an institutionalized *Socio Bosque* program creates an administrative and bureaucratic field of practice that marginalizes Indigenous *cosmovision*es through norms and rules that change local land use and resource management practices.

The evidence in the chapter also suggests that the implementation of *Socio Bosque* and other environmental governance projects, such as forestation and reforestation projects, change land use and resource management practices by redefining and reclassifying nature, leaving the *páramo* ecosystem discursively erased (Stibbe, 2015) from larger debates about the environment and adversely affected by damaging public policies, such as forestation, reforestation and resource extraction policies. As a result, policies and programs, such as *Socio Bosque* and forestation projects, are implemented to achieve international climate change results and goals and not to satisfy the needs or the demands of local communities. These programs change the ways in which *Kichwa* communities interact with their surrounding *páramo* ecosystem. The erasure of the spiritual aspects of the *Kichwa* relationship with *Pachamama*, a relationship based on the normative practice of reciprocity, relationality, complementarity, correspondence, and cyclicity, can be seen in the following ways:

1. PES programs rely on redefining and reclassifying ecosystems like the *páramo* that change local ecological landscapes and reshape local interactions with and understandings of *Pachamama*.
2. The highly spiritual connections and relationships that *Kichwa* communities have with *Pachamama* are ignored and actively erased by the market-based epistemic underpinnings of PES programs.
3. Finally, the evidence of this chapter indicates an epistemic struggle over land, space, and place, as well as local understandings and meanings of nature and poverty.

While the erasure of *Kichwa cosmovisiones* is not limited to projects like *Socio Bosque* and can be attributed to other factors, such as migration, the evidence from this study suggests that PES

programs do very little to incorporate and to protect Indigenous worldviews and traditional land use and resource management practices.

8.3 Insights for Understanding Indigenous Participation in PES Programs

In view of the research findings, this section briefly recounts the contradictory arguments in the academic literature about PES programs and provides three main insights to the debates outlined in Chapter 3.

Insight 1 – Rules and Norms Govern PES Programs

The first debate discussed in Chapter 3 compared the laissez-faire approach of free market environmentalism with environmental governance regulatory measures created to change individual and community behaviour. Free-market environmentalists theoretically see regulation as impediments to the natural function of the market (Anderson and Leal, 2001, 2015; Dryzek, 2005). For FME, in order to achieve environmental conservation, the cost/benefit must be equal to or greater than other opportunities available to those who depend on ecosystems for livelihoods. The empirical evidence of this study indicates that when implemented, PES programs are not free from rules and norms and the cost/benefit of PES programs do not outweigh the opportunities for many communities. While some free-market environmentalist aspects are present in *Socio Bosque*, the program is highly governed by rules and norms. When placed into an institutionalized, state-led framework, PES programs inevitably incorporate rules and norms which are part of the "high-modernism" of the state (Scott, 1998). Rules and norms guide behaviour but also provide measurable and quantifiable results that demonstrate the achievement of larger national and international environmental governance and climate change goals. Furthermore, the evidence presented in this research indicates that the cost/benefit of *Socio Bosque* for the *Kichwa* communities of Chimborazo is not equal to or greater than other livelihood opportunities of the *páramo*. FME programs champion the cost/benefit of conservation exceeding that of alternative uses of ecosystems, such as agriculture and livestock, but the evidence presented in this study indicates that the price assigned to nature does not cover the cost/benefit of conservation compared to alternative

ecosystem use. This gap in cost/benefit is related to the price that is assigned to nature using PES programs.

Insight 2 – Valuing Nature – Seeing Beyond the Forest for the Trees

In theory, the market-based rationale behind free-market environmentalism advocates financial compensation to individual and community landowners for the conservation of ecosystems and for the global services that ecosystems provide. However, assigning an economic value to ecosystem services is complex and the evidence in this study suggests that the economic value placed on nature inadequately reflects the variety of ways in which people, specifically Indigenous communities, value nature. First, as stated above, the payment is insufficient in that other economic activities carried out on PES land can provide communities with higher incomes. The evidence suggest that *Kichwa* communities can receive incomes from other livelihood activities, such as agriculture and livestock, greater than the incentive payments from *Socio Bosque*. Communities do recognize the detrimental effects these activities have on the fragile *páramo* ecosystem and that *Socio Bosque* is the first program to recognize the national importance of the *páramos*, but when compared to other activities *Socio Bosque* payments do not increase incentives to conserve. Second, the spiritual and cultural value that nature provides to Indigenous communities is not captured in the economic value assigned by PES programs. For the *Kichwa,* the *páramos* provide a sacred space for encounters with the divine and their ancestors. The *páramos* are a place of mystery where *huacas* exists as spaces that are used to this day for various rituals and encounters with the divine. Third, as the sliding scale of *Socio Bosque* indicates, incentive payments are rooted in and exacerbate historical inequalities between Indigenous communities and, in the case of Ecuador, Mestizo communities and large landholders. Instead of bridging gaps of inequality, *Socio Bosque* privileges large landholders by paying more for smaller plots and marginalizes Indigenous communities who are legally prohibited from dividing large, communal land into smaller plots, thus receiving less per hectare. As the statistics demonstrate, Indigenous communities that form part of *Socio Bosque* conserve more territory nationally than individuals, but they are paid substantially less, resulting in a highly unequal per-beneficiary economic benefit that favours individual landholders. Finally, *Socio Bosque* shows that placing an economic value on nature is not calculated by using some formula created to assign value to nature, but is arbitrary and largely dependent on state budgets. Little to no consultation is carried out with local communities and communities have no room for negotiating the price that MAE will pay, suggesting that the price

assigned to nature in PES programs is not based on a cost/benefit analysis, as suggested by free-market environmentalism, but has become a state imposed price that communities can either accept or choose not to participate.

Insight 3 – Hegemony, Moral Obligation and Indigenous Participation as an "Acto de sobrevivencia"

A third insight that is gained from the evidence presented above indicates that Indigenous participation in PES programs can be seen as an "*acto de sobrevivencia*" (act of survival), which requires active participation of Indigenous peoples. Indigenous participation in PES programs is more than mere garnishing for purely utilitarian and individualistic gain, but represents an understanding by Indigenous communities about the communal greater good and good of the larger cosmos. However, Indigenous participation is not limited to the realm of communal or cosmic good, but Indigenous peoples, specifically the case of the *Kichwa* who formed part of this study, recognize the economic opportunity presented in PES programs, an opportunity to improve livelihoods and increase both individual and communal well-being. While stating that the *Kichwa* view *Socio Bosque* as an economic opportunity may seem contradictory to what was stated in Insight 2, the economic opportunity is viewed in an immediate, short-term gain that satisfies the immediate needs of the community, as demonstrated by the incentive payment expenses of the five communities. In what can be described as an *acto de sobrevivencia*, Indigenous peoples participate in PES programs where they see opportunities to preserve land, to protect cultural and spiritual traditions, and to increase livelihood opportunities and economic development through incentive payments. The *Kichwa* have found ways to implement their own agendas within the framework of PES projects as a means of sustaining livelihoods and maintaining ties to land, place and space, as well as continuing traditional connections to the communal, the natural, and the divine aspects of nature, as is evidenced by the continued importance and use of *huacas* and sacred sites for traditional customs and ceremonies. However, the *Kichwa* are still bound within a framework that, as demonstrated in Chapters 5 and 6, prioritizes individual landowners, imposes rules and norms that shape behaviour and interactions, and implements the state's hegemonic environmental governance ideology. Yet, the Indigenous are not passive receptors of *Socio Bosque* and its SFG ideology as a subordinate class who have no options or alternatives. In contrast, the *Kichwa* weigh the positive and negative aspects of *Socio Bosque* on both the individual and communal level with some communities choosing to participate in

the program while neighbouring communities view it as an attempt by the state to appropriate Indigenous land.

While the evidence suggests that PES programs do erase IEK and local perspectives on nature, it would seem as if Indigenous communities, specifically the older *taytas* and *mamitas,* are able to maintain connections to *Pachamama,* suggesting, as Scott (1985) notes, that subordinate classes are able to maintain certain levels of autonomy and or "a social space in which the definitions and performances imposed by domination do not prevail" (326). For example, the persistence of the care of the *huagcha* shows that traditional ways of individual and communal care exist and persist amidst state-led programs that run counter to such acts. Furthermore, while PES programs disregard the spiritual aspect of Indigenous connections to nature, Indigenous communities are able to maintain these connections through practices, rituals, and *huacas* (spiritual sites). It is in these spaces where *Kichwa* communities maintain ties to land, place, and space in *actos de sobrevivencia* and acts of resistance to the hegemonic, market-based ideology of environmental governance. Having said that, both the practice of the *huagcha* and the spiritual connection the *Kichwa* have with *Pachamama* run the risk of being lost over time due to policies and programs that are not limited to PES or environmental governance but extend to the fields of migration, economic development, and religious appropriation. The erasure of ancient practices and spiritual connections within *Kichwa* communities is a topic which requires further research to determine exactly if and how these practices are being affected and the ability of these practices to persist and maintain relevance for a younger generation.

The final insight which relates to the concept of hegemony is the moral obligation that can be part of PES programs which encourages Indigenous communities to participate. For example, the Ecuadorian state's portrayal of *Socio Bosque* as a way to achieve *sumak kawsay* or *buen vivir* suggests the creation of a moral obligation that encourages Indigenous communities to participate in the state's hegemonic ideology about environmental governance and nature that run counter to their own *cosmovisiones*. By incorporating Indigenous concepts like *sumak kawsay* and *Pachamama* into its political discourse, the Ecuadorian state exploits the highly spiritual and symbolic relationship Indigenous peoples have with *Pachamama*. In doing so, the state creates "environmental subjects" whose

"understandings of and relations to forests [or ecosystems in general] change historically with the extension of centralized rule over forests [ecosystems]" (Agrawal, 2005: 16). The creation of environmental subjects in the case of Ecuador has taken place through the incorporation of Indigenous concepts into state policies of environmental governance and resource use by positioning programs like *Socio Bosque* as policies that help to *achieve sumak kawsay*, to protect *Pachamama*, and to conserve the rights of nature.

Much like the hacienda system which, in combination with the Roman Catholic church and the state, exploited Indigenous values of reciprocity and moral regulation to construct identities and relationships (Lyons, 2006), *Socio Bosque* has incorporated a moral component to the program that entices Indigenous communities to participate. In the times of the hacienda, the gifts and favours extended by the landowner to the Indigenous *huasipunguero* were forms of hegemonic domination used to control and quell rebellion. Similarly, the incentive payments of *Socio Bosque* are provided to coerce and to persuade Indigenous communities to participate in the implementation of a dominant ideology of environmental governance, while at the same time morally obligating communities to participate as a way to achieve *sumak kawsay*. However, as discussed above, Indigenous communities are not passive agents in this hegemonic process; rather, they are actively engaging with state-led environmental governance initiatives, demonstrating that the hegemonic process is not coercion and consent alone, but the material, social, cultural, and religious practices and relationships that establish or maintain domination (Lyons, 2006). As the evidence indicates, various communities are using *Socio Bosque* as a platform to justify demanding payments and restitution from local water companies and the transnational *Cemento Chimborazo* company.

8.4 Contributions and Concluding Remarks

This final section will explore some of the contributions this study makes to PES theoretical perspectives, the study of the Andean political economy/ecology, and decolonial methodologies and community engaged scholarship. First, it is important to review the methodological limitations that were part of this study. Due to time and resource constraints, this study was never intended to be a large scale, comparative study of *Socio Bosque*. As a result, the limited scale of the research prevented a comprehensive understanding of the effects of *Socio Bosque* on Indigenous communities in

Ecuador. With a limited focus on *Kichwa* communities in Chimborazo, this research portrays a relatively small portion of participants of the *Socio Bosque* program. The methodological focus of community focus groups and key informant interviews also has its limitations. However, since much of the research on *Socio Bosque* in Chimborazo has focused on household surveys, this study provides a unique perspective and complement to the literature (Perafán and Pabón, 2019; Arriagada et al. 2018; Hayes et al., 2017; Murtinho and Hayes, 2017; Hayes et al., 2015).

As previously mentioned, sample surveys offer one possible means of documenting people's perceptions, but they are not particularly good at documenting the feelings and historical experiences that underlie people's responses to standardized questionnaires. Combined with decolonial methodologies and community engaged scholarship, the field research provided unique opportunities to engage with communities as active participants in the research through the sharing of meals and time together where participants were able to share extended stories that gave insight into various dimensions of daily life that would not have been captured in a survey format. As with all research and methods employed, there is a trade-off in understanding various aspects of the research. In the case of this study, information about intra-household impacts of *Socio Bosque* and longitudinal data are largely absent in exchange for an understanding of larger, community views about the program, community participation and inclusion, and communal and individual relationships with *Pachamama*. Combined with a lack of data on intra-household relations and impacts, gender disparities are also not considered in great detail. Further research exploring gender, intra-household relations, and longitudinal data would allow for a deeper evaluation of the impact of *Socio Bosque* on communities and households, providing insight into the factors that explain why some, but not all, communities decide to spend money on collective goods.

Finally, opinion of the younger generations are missing from this research. While young people were present at some of the focus groups, a large majority of participants were the elderly who may have different opinions about rural livelihoods, *Pachamama*, and state-community relationships than younger generations. Since research was carried out in rural communities and many young people have migrated to larger cities in search of education and work, their input was limited. However, this limitation provides opportunities for future research and an inter-generational comparison of

some of the ideas and concepts explored in this research. In spite of these limitations, inferences about larger community use of *Socio Bosque* funds, relationships between communities and state-led PES programs, and the relationship some Indigenous communities have with land, place, and their surrounding ecosystems can be made and the observation made throughout the research are still valid. Of course, the observations and conclusions drawn from the evidence presented in this study require further research at a much larger scale to be able to compare and contrast the experience of the five communities of this study with those of other Indigenous communities.

Theoretical Contributions

It is important to reflect on what the *Socio Bosque* case study tells us about how we might theorize and conceptualize Indigenous participation and inclusion in PES programs, as well as Indigenous relationships with the state and international efforts to conserve land for global biodiversity and climate change. First, few scholars have analyzed the implications institutionalized PES programs have on meaningful participation and inclusion of Indigenous communities in national climate change and environmental governance programs. This study indicates that meaningful inclusion and participation of Indigenous peoples within PES programs is happening at the margins, meaning that Indigenous peoples are relegated to a form of inclusion and participation that is framed in such a way that their traditional land use and resource management practices are marginalized and erased by PES programs. Indigenous relationships with the state are not void of any socio-economic and historical context that shapes the way in which environmental governance programs are implemented. In the case of *Socio Bosque* and the *Kichwa* of Chimborazo, this context includes a historical marginalization and oppression of Indigenous communities framed by a clientelist relationship with the Ecuadorian state.

In spite of the marginalization and erasure of Indigenous *cosmovisiones* caused by PES programs, this research makes contributions to our conceptualizing and theorizing of the concept of hegemony, showing the agency of Indigenous communities who participate in state-led environmental governance policies and programs. Indigenous communities are not passive agents or subordinate classes who begrudgingly accept hegemonic ideologies. They are active agents who understand the

costs and benefits of PES programs and make decisions, both individual and communal, about participating in these programs.

Finally, the evidence presented in this study suggests that while PES theory's epistemological underpinnings are in a free-market environmentalist perspective, in practice PES programs are highly governed by rules and regulations, bringing into question the practicality of true free-market environmental policies. Theoretical understandings of PES programs must eradicate the false dichotomy between free-market and rule based environmental governance, recognizing, as this study shows, that PES programs operate within a framework of rules and norms that guide free-market principles. Furthermore, this study suggests that free-market principles for assigning value to ecosystem services are not applied in practice. In reality, PES programs are limited to socio-political and economic realities, such as state budgets, and do not necessarily reflect the true cost/benefit or value of ecosystems. PES programs are also confined within relationships of power where, in the case of Chimborazo, ex-hacienda landowners still hold on to the most fertile valley land and cities do not compensate highland communities for using *páramo* water.

Contributions to Andean Politics

This study not only makes the theoretical contributions mentioned above, but it also helps our understanding of contemporary Andean livelihoods, land use and resource management practices, and the role of Indigenous *cosmovisiones* and relationships with *Pachamama.* The study contributes to an ever-growing literature about the historical context of the Andean highlands, specifically in the Ecuadorian context (Lyons, 2006; Tuaza, 2014, 2017, 2018; Cameron, 2009; Bretón, 2012), by showing the past and current land use and resource management changes that Indigenous communities experience. The study also contributes to our understanding of Indigenous ways of living, being, and understanding, specifically the intricate relationship the *Kichwa* have with *Pachamama.* The study suggests that Indigenous concepts lack a clear, universal definition and are understood by local communities through lived experiences and relationships. By gaining a better understanding of Indigenous *cosmovisiones*, academics, international policy-makers, and government officials will be better positioned to implement public policies that seek to incorporate these perspectives without imposing policies that threaten Indigenous *cosmovisiones* and livelihoods or

appropriate Indigenous concepts. The study also contributes to a better understanding of the use of Indigenous concepts, such as *sumak kawsay* and *Pachamama*, in state political discourse by suggesting that the use of these concepts is superficial and, in the case of *Socio Bosque,* creates a moral obligation that coerces or encourages local communities to participate in the program. Finally, the study shows that the historical inequality present in *Kichwa* communities affects the implementation of policies, specifically policies surrounding environmental governance and land use in Indigenous communities.

Methodological Contributions

The importance of engaging with communities and individuals in a collaborative and respectful research process is at the forefront of academic research. In the particular case of Indigenous communities, incorporating what can be defined as decolonial methodologies into the research is paramount for Indigenous voices to be heard. This research shows ways in which an outsider can form part of a community process of investigation and expression of their *cosmovisiones* and livelihoods. For me, the process of gaining trust and partnership within *Kichwa* communities began in early 2009, showing that while the process is imperative, it can be a life-long investment in relationships that are based on mutual respect and reciprocity. Decolonial methods and community engaged research are fundamentally relational and relationships are not built overnight; they are constructed through years of trust built on continual engagement with Indigenous communities as they seek to build their own vision of *sumak kawsay.* In the beginning, there will undoubtedly be missteps on the part of everyone involved, but part of building lasting, reciprocal relationships are grace, mercy, and forgiveness and by embodying fundamental values that are paramount to relationships, specifically *Kichwa* relationships of community that are based on three principal values of *ama sua, ama llulla,* and *ama quella* (don't steal, don't lie, don't be lazy). In order to know, understand, and interact within these values, researchers and policy-makers will need to spend years of engagement with and learning from Indigenous communities, which, in the end, will be beneficial for everyone involved.

Finally, an important part of CES and decolonial research is that my collaboration with these communities does not end with the presentation of this research. I continue to work and collaborate with *Kichwa* communities in Chimborazo in future research possibilities, improving

livelihoods and well-being. The concept of *randi randi* is not confined to goods, but also represents an exchange of knowledge and relationships which extend beyond this research.

Contributions to PES Policy

It is clear that in order to meet global climate change goals, Indigenous communities must form a part of any strategy to achieve these goals. Having said that, international efforts and goals must better understand local contexts. International and national environmental governance programs and policy makers need a better understanding of local social, economic, political, and cultural contexts. While this understanding is not easily achieved and takes times, it is important for policy makers to understand local ways of engaging with their surrounding ecosystems in order to understand the possible implications of market-based PES programs, or other environmental governance initiatives, on Indigenous livelihoods, land use, and resource management practices. This study suggest that these programs actively marginalize and erase Indigenous *cosmovisiones.*

This erasure of Indigenous concepts operates within a local, historical framework of marginalization and oppression of Indigenous communities and ways of living, being and understanding. Therefore, while some may applaud the inclusion of Indigenous concepts and *cosmovisiones* into mainstream, Ecuadorian political and social discourse, this inclusion has not contested the "colonial matrix of power" that continues to dictate the direction of environmental governance policies and programs. One aspect in particular that has been largely ignored by PES policy makers is the spiritual and cultural relationships that Indigenous communities have with nature. In the case of the *Kichwa, Pachamama* represents a living being who deserves respect and care in a mutually beneficial relationship.

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